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Part IV

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Clean Air Act Emission Warranties; Voluntary Aftermarket Part Self-Certification Regulations

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 85

[EN-FRL 1647]

Clean Air Act Emission Warranties; Voluntary Aftermarket Part Self-Certification Regulations

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: These regulations establish a voluntary aftermarket part self-certification program (hereinafter "Part Certification Program") as required by Section 207(a)(2) of the Clean Air Act. The primary purpose of the Part Certification Program is to reduce the potential adverse economic impact on the automotive aftermarket industry that could result from implementation and enforcement of the section 207 Clean Air Act emission warranties, while at the same time assuring that certified parts do not cause vehicles to exceed Federal emission standards.

The Part Certification Program should accomplish this goal by enabling part manufacturers, on the basis of quick and inexpensive, but reliable means, to serve notice to the public that there parts are equivalent to the original equipment parts with respect to their impact on emissions, and further that no emission warrantly claim may be denied by a vehicle manufacturer on the basis of the ues of that part.

Thus, the Part Certification Program should allow full implementation of the emission warranties without disrupting the competitive structure of the automotive aftermarket industry.

DATES: These regulations shall become effective December 26, 1980.

ADDRESS:

Public Docket: Copies of materials relevant to this rule are contained in Public Docket EN-79-8 at the Central Docket Section of the U.S. Environmental Protection Agency, West Tower Gallery One, Waterside Mall, 401 "M" Street, SW., Washington, D.C. 20460, and are available for review between the hours of 8:00 a.m. and 4:00 p.m. As provided in 40 CFR Part 2, a reasonable fee may be charged for copying services.

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I. Explanatory Statement

A. Background

Section 207(a) of the Clean Air Act, 42 U.S.C. 7541, requires the Environmental Protection Agency (hereinafter "EPA" or "the Agency") to promulgate regulations under which a manufacturer of aftermarket parts may certify that installation of their parts will not cause a vehicle to fail to comply with applicable emission standards. Proposed regulations to establish the Part Certification Program were published on August 8, 1979 at 44 FR 46686 (hereinafter "Proposal"). The Proposal was issued after numerous consultations with the affected industries. In fact, the Proposal itself was based in great part upon a Part Certification Program proposed to EPA by the Automotive Liaison Council (ALC) and the Automotive Products Emissions Committee (APEC). Although these groups consist primarily of representatives of the automotive aftermarket part manufacturing and service industries, they invited and received participation by vehicle manufacturers. In addition, prior to issuing the Proposal, the Agency considered comments received in response to a voluntary questionnaire that was circulated to the affected industry and published on July 9, 1973, at 38 FR 18264 and in response to an Advance Notice of Proposed Guidelines for a voluntary part certification program that was published on November 14, 1974, at 39 FR 40192.

The Agency invited both oral and written comments on the Proposal. A public hearing on the Proposal was held in Chicago, Illinois on October 3 and 4, 1979. In addition, the Proposal stated that EPA would accept written comments received on or before November 12, 1979. Although this comment period was in excess of that required by the Act, the Agency later granted requests by representatives of the automotive aftermarket industry for an extension of time to comment on the Proposal. See 44 FR 62915 (November 1, 1979). The extended period ended on January 15, 1980.

The Agency considered all comments received during the comment period. A summary and analysis of the comments may be found at VI-1, Public Docket EN-79-8. In addition, the major comments are discussed in the relevant sections of this preamble.

As previously stated, the primary purpose of the Part Certification Program is to reduce the potential adverse economic impact on the automotive aftermarket industry that could result from implementation and enforcement of the Section 207 emission warranties, while at the same time assuring that certified parts do not cause vehicle emissions to exceed Federal standards. The following is a brief explanation of the potential anticompetitive impacts of the warranties and a discussion of how the Part Certification Program will accomplish the above stated purpose.

Section 207(a)(1) of the Clean Air Act (herinafter "Act") requires all vehicle manufacturers to warrant that each new vehicle is free from defects in materials and workmanship which cause the vehicle to fail to meet applicable emission-related regulations for its useful life. In addition, Section 207(b) of the Act requires the Agency to promulgate regulations requiring vehicle manufacturers to warrant the emission control devices and systems of each new vehicle such that if the vehicle, although maintained and used in accordance with the manufacturer's written instructions, fails an EPA-approved emission short test, the cost of repairing the emission control devices or systems will be borne by the vehicle manufacturer. These regulations have been promulgated at 45 FR 34829 (May 22, 1980) and took effect beginning with 1981 model year vehicles.

The use of inferior quality parts can cause a vehicle to exceed emission standards in one of two ways. First, a part, such as a catalytic converter, can directly cause the vehicle to exceed emission standards by failing to perform in the same manner as the original equipment part (hereinafter "OE part"). Second, a part can indirectly cause emission standards to be exceeded by operating in a manner adversely affecting another part, which in turn causes vehicle emissions to increase.

Vehicle manufacturers, in order to protect themselves from being required to pay for warranty repairs necessitated by the use of inferior parts, have

specified in the maintenance and use instructions provided to new vehicle owners that vehicles should be maintained and repaired with only OE parts or parts equivalent to OE parts. Further, these instructions have stated that the vehicle manufacturers will not be responsible for any emission warranty repairs necessitated by the installation of a non-equivalent part.

Prior to the issuance of these regulations, there was no way for vehicle owners to identify parts that were equivalent to OE parts from an emission standpoint. Therefore, although vehicle owners did not necessarily lose emission warranty coverage by using equivalent replacement parts, absent the Part Certification Program, the only way a car owner could be absolutely certain that his or her vehicle remained eligible for free emission warranty repairs was to use OE parts.

As a result of the situation discussed above, in December 1974, the House Subcommittee on Environmental Problems Affecting Small Business found that the maintenance and use instructions, coupled with the emission warranties, created a psychological and financial tie-in between the new car owner and OE parts for 5 years or 50,000 miles.[1] On the basis of this finding, the Subcommittee concluded that the 5 year/50,000 mile warranty provisions of the Act were anticompetitive and provided the means by which the major vehicle manufacturers could monopolize the authomotive aftermarket part industry to the serious detriment of the over 1,700 independent parts manufacturers and 22,000 wholesalers and distributors.

Because of Congress concern that the emission warranties could have an anticompetitive effect, Section 207(a) of the Act was amended in August 1977, to require EPA to promulgate regulations establishing an aftermarket part certification program under which part manufacturers could assure vehicle owners that use of their parts would not void the vehicle's emission warranties. These Part Certification Regulations fulfill that mandate.

B. General Comments

Many commenters supported the general concept of the Part Certification Program, although many of them objected to one or more of the particular provisions. On the other hand, a number of commenters criticized the concept of the Part Certification Program. Many of these parties, especially individual part manufacturers or service facilities, objected to the idea of government regulation extending to aftermarket parts. Much of their objection appeared to be based upon a belief that the Part Certification Program would be mandatory and might put significant portions of the automotive aftermarket parts industry out of business.

The Part Certification Regulations should not put any party out of business. The Part Certification Program will be voluntary. No party will be required to comply with any of the requirements of the Part Certification Program unless it choses to do so. No penalty will be assessed against any party choosing not to certify.

Some commenters, such as the Automotive Service Industry Association, allege that despite the fact that EPA will not require part manufacturers to certify parts, the Part Certification Program will still be compulsory. To support this assertion, these commenters point to the different treatment provided to certified parts and uncertified parts under the emission performance warranty regulations. Under the emission performance warranty, vehicle manufacturers are required to perform warranty repairs when the need for such repairs results from the use of a certified automotive aftermarket part. However, vehicle manufacturers may deny emission warranty claims when a repair is necessitated by a non-certified aftermarket part. This they state, will result in part manufacturers' being required to certify their parts to stay competitive with those manufacturers that do choose to certify their parts.

The Agency agrees that consumers who choose to use certified parts will receive protection beyond that provided to consumers who chose to buy non-certified parts. Moreover, the Agency agrees that this additional protection may result in vehicle owners' choosing to purchase certified parts over non-certified parts. However, the Agency does not agree that this amounts to making participation in the Part Certification Program mandatory rather than voluntary, as Congress had intended. As stated above, no party is required to certify their parts. Parties choosing not to certify may continue to sell their parts as they have before. As such, the program is not "compulsory."

The Clean Air Act states that no emission performance warranty may be invalid on the basis of use of a certified part. However, the Act is silent as to the effect of non-certified parts on the warranty. Therefore, EPA believes Congress intended for additional protection to be provided to consumers that purchase certified parts, while other parts are treated as they were prior to the regulations.

The Agency has reason to believe that the installation of a certified part will not cause a vehicle to exceed Federal emission standards, as any part tested as meeting the requirements of these regulations should not adversely impact vehicle emissions. On the other hand, the Agency has no basis upon which to judge the emission impact of a non-certified part installed on a vehicle. Therefore, the Agency believes that the different treatment afforded certified and uncertified parts in the emission performance warranty regulations is valid and in accord with the Act.

Each part manufacturer will, of course, use its own judgment whether to certify its parts. However, EPA has purposefully structured the program so that any party who manufactures sound parts and uses reasonable quality control should be able to certify with minimal expense or difficulty.

EPA's Section 207(b) emission performance warranty regulations prohibit vehicle manufacturers from denying warranty claims on the basis of certified parts. The vehicle manufacturers argued in their comments to this rulemaking that this prohibition is contrary to the Act and asserted that EPA placed too much significance on the Part Certification Program. In particular, the vehicle manufacturers argued that Congress did not intend that they be held responsible for certified parts which cause individual vehicles to exceed emission standards. The Agency does not agree. Section 207(b) of the Act clearly provides that no emission warranty claim shall be invalid on the basis of the use of a certified part. The rationales for this requirement, as well as its benefits, have been fully discussed during the rulemaking for the emission performance warranty cited above and are summarized at a later point in this document.

Some of the parties who supported the proposed ALC/APEC program in general believed that EPA departed from the spirit of the program by adopting certification requirements in the proposal that were additional to or different from those recommended in the ALC/APEC program. EPA realized that some of its proposed revisions to the ALC/APEC program were significant. However, the Agency made these changes in an effort to protect consumers who purchase the certified parts, and also to minimize the possibility that the use of these parts will cause in-use vehicles to exceed

[1] Subcommittee of the Permanent Select Committee on Small Business in a Report on the "Monopolistic Tendencies of Auto Emission Warranty Provisions" H.R. Rep. No. 628, 93d Cong., 2nd Sess. 30 (1974).

emission standards. EPA has carefully studied the comments relating to its revisions, and has made modifications in the final rule where appropriate. A discussion of the individual revisions is contained in the relevant sections of this preamble.

Some parties, particularly representative of the tire industry, also questioned EPA's decision that this regulation does not require a full Regulatory Analysis pursuant to the President's Executive Order 12044. Under the Executive Order, EPA would be required to prepare a full Regulatory Analysis if the regulation would have annual costs associated with it of more than $100 million for any of the first five years from the effective date, or if the regulation would cause a 5 percent increase in the cost of any item.

As stated in the Economic Analysis prepared in support of the Proposal, the costs associated with this program will be insignificant and are such that a Regulatory Analysis is not required. Further, the commenters failed to supply any significant economic data supporting their statements. If the costs of the program are as significant as alleged by certain members of the industry, then it is unlikely that any party will choose to certify its parts and, therefore, these costs will not be incurred. In any case, EPA has made modifications to the Proposal which should satisfy many of the cost-related concerns that were raised in the comments. These modifications are discussed in the appropriate sections of this preamble.

The Agency has made every attempt to minimize any burdens of the program on the affected industry. With minor modifications, the emission critical parameters and test procedures specified for demonstrating compliance with these parameters were developed by APEC. EPA believes that most, if not all, of this testing is little more than is presently being performed by much of the industry as sound quality control.

C. Outline of Certification Procedure.

The Part Certification Program is basically the same as that contained in the Proposal. The certification of parts pursuant to this program will be voluntary. Moreover, it will be a self-certification program. That is, all testing and evaluations necessary for certifying a part will be conducted by the part manufacturer. EPA will have only an oversight role. However, in its oversight role EPA may randomly purchase certified parts from retail outlets and perform the necessary tests on preselected parts to assure that these parts were properly certified.

Certification by the part manufacturer will be made on the basis of completion of the tests and analyses which demonstrate compliance with the applicable Emission Critical Parameters set forth in the regulations or on the basis of back-to-back emission testing. Once a manufacturer has complied with the requirements of these procedures, it may represent the applicable parts to the public as "certified to EPA standards." The use of parts certified in accordance with these regulations will assure continued emission warranty coverage.

Although the certification will be made by the part manufacturer and not EPA forty-five days prior to selling a part as certified, a part manufacturer will be required to send a notice of its intent to certify the part to EPA. EPA will put a copy of this notice in Public Docket EN–79–8. During the forty-five day period, EPA may object to the intent to certify, in which case more information will be required to be submitted to EPA. If EPA takes no action, or the part manufacturer adequately addresses all questions raised, the part manufacturer will be able to sell the part as certified without any further communication with the Agency. Thus, part certification will normally be automatic.

Because this is a self-certification program in which EPA, under normal circumstances, will not be directly involved, part manufacturers will be required to establish and maintain records which contains descriptions and results of all certification tests performed on the parts, as well as other information relating to the integrity of the parts and the certification procedures utilized. This information shall be available to EPA upon written request and may be considered by EPA when making determinations of whether a part should be decertified. The regulations provide criteria and procedures whereby EPA may decertify parts it determines are not in compliance with these regulations.

II. Specific Provisions

The major sections of the regulations are discussed below. Included in these discussions are the major comments made concerning each section, as well as the changes brought about by those comments. In addition, a summary and analysis of comments may be found at V1–1 Public Docket EN–79–8. A more detailed discussion of the basic provisions appears in the preamble to the Proposal, 44 FR 46686 (August 8, 1979).

A. General Applicability

Under the Proposal, any automotive aftermarket part that affects emissions, including tires, would have been eligible for certification. EPA received a great deal of negative comment on this broad applicability provision. Most of the comment concerned the inadvisability of certifying tires. Some commenters asserted that if tires could be certified, then surely mirrors which impact on wind resistance, shoud be eligible for part certification. Inclusion of such parts, the commenters stated, would complicate the program and lead to the entire program becoming ineffective.

Although virtually all of the commenters agreed that the proposed eligibility provision was too broad, they differed over exactly which components should be eligible for certification. The vehicle manufacturers took an extremely narrow view of what should be covered under the warranty. General Motors Corporation (hereinafter "GMC") asserted that certification should be limited to those parts covered by the Section 207(b) warranty for a vehicle's full useful life. GMC appears to have confused the intent of Congress in limiting the definition of "emission control devices and systems" for the purpose of emission performance warranty coverage under Section 207(b) with Congressional intent regarding eligibility under the Part Certification Program. Contrary to GMC's assertion, there is nothing in the Act or its legislative history indicating that Congress intended that the Part Certification Program should cover only those parts warranted for the full emission performance warranty period. Rather it is clear that Congress was well aware that other items, such as spark plugs, air cleaner elements, etc., impact upon a vehicle's ability to meet applicable emission standards and might be cited as a basis for denying an emission warranty claim at any time during a vehicle's useful life. Certainly Congress intended for these parts to be eligible for the certification program.

The Agency believes that to carry out the purpose of Section 207(b) it is important that no parts affecting emissions be excluded from the Part Certification Program. The Agency believes that if a part is of a kind that could fail in a manner that would cause a vehicle to exceed applicable emission standards, as adjudged by an applicable short test, then it should be eligible for certification. Otherwise, it could be argued that a vehicle owner would, in effect, be forced into purchasing an OE part or facing a possible warranty claim denial by a vehicle manufacturer on the

basis that his or her vehicle failed an emission short test as the result of a non-equivalent replacement part, rather than as a result of a failed "emission control device or system." The Agency believes that this is exactly the choice that Congress does not want the consumer to have to make.

Therefore, all emission-related components are eligible for the certification program. However, the final regulations have been revised to permit only parts for which EPA has identified Emission Critical Parameters to be certified.[2] This will prevent any potential abuse of the program by manufacturers of parts with no impact on emissions. More importantly, however, this limitation will prevent vehicle manufacturers from automatically certifying all emission-related components on a vehicle at time of sale and, thereby, obtaining a market advantage over independent part manufacturers who, without the availability of a simple and inexpensive bench test will be forced to conduct a full Federal Test Procedure to certify their parts or risk having car owners purchase only OE certified parts. (The vehicle manufacturers could have done this by asserting that the vehicle certification emission tests satisfy the emission-testing requirements of these regulations.) The Agency realizes that only a few parts presently have identified Emission Critical Parameters, but the Agency decided that this limitation is necessary to avoid the above-mentioned potential anticompetitive situation which could frustrate the "pro-competitive" intent of Section 207(a)(2) of the Act. The Agency hopes that APEC, individual part manufacturers, vehicle manufacturers or other interested parties will assist the Agency in developing standards for additional parts.

For the present, "add-on" and "modified" parts are not included in the Part Certification Program. This is because at present there are no Emission Critical Parameters identified for such parts. The Agency received numerous objections to the inclusion of these parts. Vehicle manufacturers do not believe they should be held responsible for such parts under the emission warranty. In addition, EPA also received comment from representatives of the add-on part industries indicating that full Federal testing would be so time-consuming and expensive that absent an alternative method of certification, the Proposal did not provide a realistic opportunity for the certification of add-on or modified parts. Therefore, the Agency has deleted, for the present, such parts from the program. The Agency has not, however, made a final determination to exclude such parts from the Part Certification Program. Rather, EPA will reserve judgment on this issue until such time as a quick and inexpensive but reliable test for emission impacts of add-on parts is identified. The Agency notes, however, that its policy will be that any party installing any part, including an add-on part, that has successfully been emission tested in accordance with Section 85.2114, will not be considered to have tampered with a vehicle in violation of section 203(a)(3) of the Act.

Another issue raised by the commenters concerns the first model year for which parts may be certified. Some commenters argue that Section 207(a)(2) of the Act indicates that the purpose of the Part Certification Program is to carry out the purposes of Section 207(b) of the Act. These commenters assert that since the Section 207(b) emission performance warranty will not be in effect for pre-1981 model year vehicles, no part should be eligible for certification for pre-1981 model year vehicles. Although this interpretation has some appeal, the Agency continues to believe that part manufacturers should be able to certify parts for vehicles not covered by the Section 207(b) emission performance warranty. First, since 1977, the Act has required vehicle manufacturers to include a statement with their written instructions for proper maintenance and use that "* * * maintenance, replacement, or repair of the emission control devices or systems may be performed by any automotive repair establishment or individual using any automotive part which has been certified as provided in subsection (a)(2)." Since Congress, although apparently aware that the warranty could not possibly be implemented until the 1979 or 1980 model year, still required the language beginning with the 1977 model year, presumably it intended that vehicles not covered by the emission performance warranty have certified parts available as replacements. Otherwise, Congress could have specifically required that only vehicles covered by the section 207(b) emission performance warranty contain the above quoted statement.

Finally, this interpretation makes sense because although the primary purpose of the Part Certification Program is to carry out the purpose of Section 207(b), the program offers additional benefits. For instance, it provides consumers with additional information concerning automotive aftermarket parts. This information could be especially useful to owners of vehicles that are covered by the Section 207(a) emission design and defect warranty. Although a Section 207(a) warranty claim may be denied if a part failure results from a defective certified part, vehicle owners will at least be able to ascertain which parts are equivalent to the OE parts and thus avoid the situation where a part, such as a catalyst, fails because of a non-equivalent replacement part, such as a non-equivalent spark plug. In addition, repair facilities that install certified parts can do so without fear of violating the tampering prohibition of section 207(a)(3) of the Act. The Agency believes Congress intended that such benefits as these be available for parts manufactured for pre-1981 model year vehicles. Moreover, since vehicles manufacturers will not incur emission performance warranty liability for such parts prior to the 1981 model year, the decision to allow certification of parts for use in earlier model year vehicles should not cause the vehicle manufacturers any harm.

For the above reasons, the regulations provide that a part may be certified for 1968 or later model year vehicles, 1968 being the first model year for which vehicle emissions were regulated by the Federal Government.

A final issue is whether heavy-duty and motorcycle parts may be certified. The regulations provide only for the certification of light-duty vehicle and light-duty truck parts. This is because the Agency has not presently considered all the ramifications of establishing a program for motorcycle and heavy-duty engine part certification. In addition, there is presently no Section 207(b) emission performance warranty for these parts. The Agency, however, is interested in receiving input from representatives of these industries. EPA may propose amendments to the regulations in the future to allow for the certification of motorcycle and heavy-duty engine parts.

B. Definitions

Some of the definitions contained in the Proposal have been modified or deleted. First, since only parts for which emission critical parameters have been identified may be certified, and since at present there are no such parameters

[2] The regulations will still provide that parts having emission-critical parameters may be certified via emission testing rather than via compliance with emission-critical parameters. This will allow manufacturers of functionally-equivalent parts to certify. As such, these regulations will not stifle innovations in the automotive aftermarket.

identified for add-on parts, the regulations speak only in terms of "Aftermarket Parts" and do not distinguish between different types of aftermarket parts. The Agency has, therefore, adopted the definitions of "Aftermarket Part" as well as "Certified Aftermarket Part" that were contained in the ALC proposed program.

The Agency has also amended the definition of "Emission Critical Parameters." The Agency believes that the language provided by APEC in its testimony at the hearings is in accord with the Agency's original intention. That is, the Agency believes that conformance to the "Emission Critical Parameters" should establish that a part is equivalent to the OE part from an emissions standpoint. Since much of the automotive aftermarket industry is apparently more comfortable with the definition supported by APEC, and because it is in accord with EPA's intent, the Agency has adopted the APEC definition.

C. Basis of Certification

Under the proposal, as in the final rule, part manufacturers will be offered two means to certify their parts: (1) Tests and analyses which demonstrate compliance with the applicable Emission Critical Parameters; or (2) back-to-back emission testing.

Some commenters, including some of the vehicle manufacturers, asserted that in order to comply with the Clean Air Act mandate, only parts which have been subjected to full emission testing, including durability testing, and utilizing the full Federal Testing Procedure, should be allowed to be certified. They claimed that the proposed Emission Critical Parameters, as well as the test procedures set forth to demonstrate compliance with these parameters, were not rigorous enough to assure compliance with the Act's requirement that use of a certified part not cause a vehicle to exceed the applicable standards under section 202.

The Agency does not believe that Congress intended that part manufacturers be required to undergo extensive and prohibitively costly emission testing prior to certifying their parts. The Agency believes that Congress was aware of the ANPG, which devised a program very similar to this one when it included the aftermarket part certification provisions in the Clean Air Act, and that it intended EPA to establish a similar program by these regulations. The Agency further believes that Congress, by including the aftermarket part certification provisions, was attempting to preserve the competitive marketplace of the automotive aftermarket. Certainly Congress was aware that such an attempt would be futile if in order to certify their parts the part manufacturers were forced to conduct the full Federal Test Procedure and also conduct the same durability testing that is required of vehicle manufacturers. Few manufacturers, especially small manufacturers of inexpensive parts, would ever choose to participate in such a program.

The Agency believes that compliance by part manufacturers with the Emission Critical Parameters set forth in the final rule represents the type of burden Congress itended to be placed upon part manufacturers, yet will still provide reasonable assurance that the parts do not cause vehicles to exceed applicable emission standards. The Emission Critical Parameters, as well as the relevant test procedures, have been slightly modified from the Proposal. The modifications are based upon comments received by vehicle manufacturers and the automotive aftermarket industry. A discussion of the comments received on the standards and test procedures is contained in a separate support document at Public Docket EN–79–8.

The vehicle manufacturers were particularly concerned that compliance by part manufacturers with the requirments of the Proposal would not assure that parts are reliable or durable. On the other hand, representatives of the automotive aftermarket industry asserted that it was improper for the Agency to establish any durability requirements for most parts. Rather, these representatives asserted that because of the unknown condition of a vehicle in which a part is to be installed, it would be impossible to guarantee durability. Therefore, these parties asserted that the part manufacturer should be required to show no more than that a new part, in an otherwise properly operating vehicle, would meet the Emission Critical Parameters.

The Agency believes that it is imperative that only durable parts be certified. Otherwise it would be possible for properly certified parts to deteriorate in use so as to cause a vehicle to exceed standards and perhaps cause the failure of other components. If this were to happen, vehicle manufacturers could incur unwarranted (although reimbursable) emission warranty expenses. On the other hand, EPA does not believe that it must set elaborate procedures for assuring durability similar to the durability procedure prescribed in 40 CFR Part 86. The Agency does expect, and requires, that part manufacturers perform such tests and analyses necessary to assure that their parts will be durable. In many instances EPA believes that the durability aspects of a part could be somewhat of an issue in-use. For these parts EPA has set our specific durability requirements. However, in some instances, the Agency believes that setting specific durability testing requirements is unnecessary. In those instances the Agency believes that market pressures, the warranty requirement, and the Agency's ability to decertify a part which is not durable are sufficient to assure that certified parts are, in fact, durable.

Some commenters suggested that the Agency allow part manufacturers to certify parts on the basis of "short tests" rather than the full Federal Test Procedure. These parties stated that since vehicle manufacturers will incur Section 207(b) emission performance warranty liability only when a vehicle fails an EPA-approved short test utilized in a state or local emission inspection and maintenance program, and since the primary direction from Congress for the Part Certification Program is to carry out the purposes of Section 207(b) of the Act, it makes sense that part manufacturers should be required to show no more than that use of a part will not result in the failure of a vehicle to pass a short test. Moreover, the commenters point out that any EPA-approved short test will have been found by the Agency to correlate with the Full Federal Test Procedure.

While this argument has considerable appeal, a closer analysis of the implications of allowing part manufacturers to certify parts using any of the existing emission short tests demonstrates that such an approach would be unwise. First, although the EPA-approved short tests correlate with the full Federal Test Procedure in that if a vehicle fails a short test it will almost certainly fail the full Federal Test Procedure, the short tests do not, in themselves, demonstrate compliance with Federal Emission Standards. The tests are designed only to catch excessively polluting vehicles. In some instances vehicles which exceed one or more applicable emission standard will pass emission short tests. Therefore, mere compliance with a short test would not allow a manufacturer to certify "that use of such part will not result in a failure of the vehicle or engine to comply with emission standards promulgated under section 202" as is set forth in the Act. This is particularly true since presently none of the EPA-approved short tests have been demonstrated to

correlate with NO_x emissions which are regulated under section 202 of the Act.

Consequently, the Agency will not allow a part to be certified on the basis of the short tests approved to date. The Agency is still, however, interested in the development of a short test that could be used as a basis for part certification.

The Agency realizes the time and expense associated with conducting the full Federal Test Procedure. EPA, therefore, requested comments on whether portions of it could be deleted during part certification testing. The Agency received no workable suggestions. However, in an effort to lessen the burden of certifying parts on the basis of emission testing, the Agency has decided to adopt the comment of the Specialty Equipment Manufacturers Association and reduce the number of required tests for each part from four to two. Moreover, the tests will only be required to be performed on a vehicle in which the part has been installed, rather than additionally requiring the test to be performed on the vehicle with the original equipment part installed. As explained below, the Agency believes that this procedures provides a sufficient basis upon which to assure that a part will not cause a vehicle to exceed applicable emission standards, while providing a more realistic opportunity for a part manufacturer to certify a part. Moreover, it is unlikely that any part so certified, especially if merely a replacement part, would cause any change in vehicle emissions.

As a result of this change it will be possible for a part manufacturer to demonstrate only that proper installation of a certified part will not cause vehicle emissions to exceed standards, rather than showing also that use of the part will not cause vehicle emissions to be increased as would have been required under the Proposal. The Agency realizes that under this approach it is theoretically possible that use of a part so certified could cause emissions to increase slightly, and that use of a number of such parts (each causing a slight increase in emissions) in a single vehicle could cause the vehicle to exceed emission standards and perhaps fail a short test. However, as discussed below, the Agency believes that the emission-testing requirement is stringent enough so that such a possibility is not great and is certainly offset by the cost savings of requiring only two emission tests rather than four. Therefore, the Agency has decided to require only two tests on one vehicle. If parts other than replacement parts are later included in the program, the Agency may review this requirement with respect to those parts.

The Agency believes that this change will not result in vehicle manufacturers' incurring additional warranty expenses. This is particularly true given the fact that the current emission short tests that trigger emission warranty liability are not as stringent as the Federal Test Procedure. It is unlikely that the cumulative impact of parts certified in accordance with the specified emission test procedures would cause a vehicle to fail applicable emission standards, much less to result in a failure of these current short tests.

There seems to be some confusion by the commenters as to how manufacturers of original equipment parts may certify their replacement parts. In cases where a replacement part is truly identical to the part used in the assemblyline, testing to determine compliance with the emission critical parameters would be unnecessary. Therefore, the manufacturers of such parts could certify with no testing. However, this does not mean that a manufacturer of original equipment parts or vehicle manufacturers may automatically certify replacement parts that are not identical to those parts installed on the assemblyline. For those parts, vehicle manufacturers, or their suppliers would have to perform tests necessary to show compliance with these regulations. Moreover, the fact that a replacement part is equivalent to an OE part, such that no additional emission-related testing is necessary, does not exempt the manufacturer of the part from any other requirements of these regulations including labeling, sending a notification to EPA, or warranty responsibility.

Many representatives of aftermarket part manufacturers objected to the provision of the proposal which would require that no part having a shorter service or maintenance interval could be certified if any EPA regulation establishes a minimum replacement or service interval for a part during vehicle certification. These parties focused on the condition of in-use vehicles and differences between in-use and certification vehicles. Thus, they stated, it is unreasonable to hold automotive aftermarket parts to intervals required of OE parts on certification vehicles.

The Agency believes that all present minimum certification maintenance interval requirements are achievable on in-use vehicles, because they have been achieved on in-use vehicles for some time. Moreover, as stated in the Preamble to the Proposal, the Agency believes that holding vehicle manufacturers to specific maintenance interval requirements, while allowing replacement parts to be certified that do not meet such requirements, would defeat the purposes of the regulations. For instance, one such purpose is to assure that maintenance is not required to be performed at intervals so frequent that an owner is unlikely to comply. Therefore, the final rule provides that no part may be certified that requires servicing or replacement more frequently than any minimum interval specified for that part in 40 CFR Part 86.

Another objection of some of the automotive aftermarket industry concerns the requirements in the regulations that certified parts not severely degrade vehicle performance or contribute to an unsafe driving condition. According to these commenters, the Part Certification Program should concern itself only with emission characteristics of parts.

The Agency does not agree. The Agency believes that to allow an unsafe part to be certified would be contrary to the public interest. Moreover, if a part contributes to poor vehicle performance, such poor performance could provide an incentive for a person to alter emission control devices and systems in an attempt to obtain improved performance. This could have a negative air quality impact.

D. Notification of Certification

As previously stated, the Agency normally will not be directly involved in the part certification process. However, because it is important for EPA, as well as other interested parties, to be aware of which parts are certified and for which vehicles the parts are certified, the regulations require a notification of intent to certify a part to be sent to EPA by the part manufacturer 45 days prior to the proposed date of sale of the part as certified.

As proposed, the part manufacturers would have been required to submit the notices of intent to certify 60 rather than 45 days prior to sale of the part as certified. Some commenters felt that this was too long a time period, perhaps so great as to be anticompetitive. The Agency does not agree that the 60-day period would necessarily have been anticompetitive. The Agency notes that the parts may be sold even if not certified. Moreover, the regulations allow for the certification of existing stock. Therefore the 60-day period would not cause a delay in getting parts on the market. However, the Agency does not want to force undue delays in the sale of certified parts. Therefore, the Agency limited the period to 45 days, a period in which the Agency believes it can properly review the notices for

completeness, become alerted to potential problems, and notify a part manufacturer of any potential problems, if necessary.

Some of the vehicle manufacturers suggested a longer period between receipt by EPA of the notice of intent to certify and sale of parts as certified. However, this request appears to be based upon a belief that vehicle manufacturers should be able to test each part prior to its sale as certified. The Agency does not believe that it is necessary for vehicle manufacturers to do so. The vehicle manufacturers do not approve the certification of parts. Although a vehicle manufacturer, like any other party, can provide information to EPA regarding a certified part, the vehicle manufacturer has no direct role in the part certification process, and therefore cannot block a part from being certified. Rather the vehicle manufacturers can check a notice of intent to certify and if an obvious problem is found, such as an inadequate test procedure, or if the vehicle manufacturer believes that the part has in the past caused vehicle problems, including adverse impacts on vehicle emissions, the Agency expects that the vehicle manufacturer would inform EPA. If EPA believed that the vehicle manufacturer had a legitimate concern, then it would request further information from the part manufacturer prior to the part being sold as certified. If EPA disagreed, then the part could be sold as certified at the end of the 45-day period. As a result of this procedure, part manufacturers would not have to delay certification of a part pending testing of the part by a vehicle manufacturer or approval of the part by a vehicle manufacturer. This procedure is consistent with the legislative history of the part certification provision, which makes clear that vehicle manufacturers would not be directly involved in the part certification process. S. Rep. No. 95–127, 95th Cong., First Sess. 81 (1977).

Not all of the vehicle manufacturers expressed a desire to test certified parts. GMC stated that it did not even want to receive copies of the notices of intent to certify. GMC argued that if they received such notice and did not object to it, such could be construed as an approval, which for a number of reasons GMC is not prepared to give.

The Agency, therefore, has eliminated the provision requiring a copy of the notice of intent to certify to be sent to vehicle manufacturers. The Agency will, however, place all such notices received in a public docket so that any party, including vehicle manufacturers, interested in reviewing the notices can do so.

In response to comments that the information required to be covered by the notice was too extensive, the Agency has modified the requirements somewhat. The Agency believes that all information required to be submitted by the final rule is necessary and that the requirement is not burdensome.

One major change in the notice is that the final regulations require a person to sign the notice and attest to its correctness. This should help prevent fraudulent certifications by part manufacturers, as the person signing the notice would be liable under section 113 of the Clean Air Act, as well as 18 U.S.C. 1001, for submitting false documents to the government should that person knowingly represent that a part complies with the terms and conditions of these regulations when in fact it does not. This should satisfy some of the concerns of the vehicle manufacturers who expressed a view that although the majority of the automotive aftermarket is reputable, the regulations provided an opportunity for a small minority of unscrupulous parts manufacturers to take advantage of the system.

E. Objections to Certification

Section 85.2116 of the final rule is virtually identical to that of the Proposal. Anytime during the 45-day period between receipt by the Agency of a notice of intent to certify and the intended first day of sale of that part, the Agency may notify the part manufacturer that the part may not be sold as certified, pending further investigation. Sections 85.2116(a)(1)–(6) set forth the bases upon which the Agency will send such notices.

Interested parties, including the part manufacturer, will have an opportunity to comment in writing to the Director of the Manufacturer's Operations Division on any EPA letter objecting to a part certification. In addition, the Director may allow oral presentations. After deciding whether the part in question may be certified, the Director will notify, in writing, the part manufacturer and any other identified interested party of the decision. Any interested party adversely affected by such decision may appeal to the Deputy Assistant Administrator for Mobile Source, Noise and Radiation Enforcement.

The major comments on this provision, such as those on the Agency's authority to disallow a part from being certified for reasons other than a part's impact on vehicle emissions, have been discussed in the previous section of the preamble and will not be repeated here. However, there are other comments which should be discussed at this point.

Some parties noted that once EPA objected to the certification of a part, there was no time deadline in which EPA would be required to make a final decision. They asserted that the Agency could delay a decision for an unreasonable period of time and in the interim, the manufacturer of such part would not be able to certify the part and might lose its ability to compete for sales of that type part. Therefore, these parties stated that a time deadline should be set in which EPA would be required to make such decisions.

The Agency has decided to set time periods during which the Director and the Deputy Assistant Administrator will be required to act. The Director will render a decision within 30 days from the date he or she has received all necessary information from the part manufacturer or other interested parties. The Deputy Assistant Administrator will likewise have 30 days to act, in cases that are appealed. The Agency will make all such decisions as quickly as possible and does not expect that the full 30 working days will be necessary in most instances. In the meantime, the Agency notes that even if an objection to certification is pending, the parts may be sold as before, although not sold as certified.

A few parties asserted that neither the Director nor the Deputy Assistant Administrator are neutral parties in matters of whether a part should be allowed to be certified, and that a neutral party should be the arbiter. The Agency does not agree that the Director and the Deputy Assistant Administrator are interested parties such that they will not make their respective determinations fairly. Moreover, the Agency believes that only these parties will have enough familiarity with the part certification program to be able to make timely decisions as to a part's eligibility.

F. Labelling Requirement

Perhaps the most widely objected to provisions of the Proposal were those containing the proposed labelling requirements. Virtually all parties criticized the amount of labelling that would have been required for each certified part. At the public hearing, parts were displayed that were extremely small. The persons displaying these parts questioned whether these parts could in fact be labelled in accordance with the proposed requirements. In addition, these parties asserted that the packaging for these parts would have to be disproportionately large to display all of

the information required under the Proposal.

The Agency has reviewed the comments regarding the labelling requirements and has reduced the requirements significantly.

The Agency received numerous comments pointing out that, in the past, the aftermarket parts industry has successfully used parts catalogs and service manuals to provide engine application and installation instructions to all segments of the service industry. These parties asserted that if the Part Certification Program is to be workable, the final regulations must be written to utilize these effective aftermarket methods.

Although GMC was one such commenter, it also presented a series of catalogs showing the part numbers and their application to model years and vehicle models to depict the magnitude of the current problem involving the cross referencing of GMC aftermarket parts and applications alone. This problem, GMC asserts, would drastically increase if it is required to catalog all certified aftermarket parts.

For the reasons pointed out by GMC, EPA desires that, to the extent practicable, all certified parts be marked "certified to EPA standards." This way vehicle manufacturers could quickly determine whether a part was certified and in most circumstances would not have to check the manuals to determine that fact. However, due to the objections of the various parties to requiring individual parts to be labelled, the Agency has decided to omit this requirement from the final rule, providing the parts are marked as discussed below. The Agency does not believe that this change will cause vehicle manufacturers much difficulty.

First, the Agency expects that aftermarket parts will not frequently be the cause of a properly maintained and used vehicle's failure to pass a short test. Second, in those few cases where they are the cause, it should not be difficult for the vehicle manufacturer to check a catalog to see if the part in question is certified.

In order for a vehicle manufacturer to make such a check, it is important that the part manufacturer include information in its catalogs on which parts are certified and for which vehicles the part is to be used. In addition, it is important that each part be marked in a manner such that it can be identified. Such marking should include the manufacturer identification and part number.

The Agency realizes that there are situations where one part manufacturer produces identical parts which are supplied to different parties who, in turn, market the parts in different packages under their own brand names. The final rule does not require that such parts be marked differently, provided they are all sold as certified (even if certified by different parties), and the original manufacturer or some other responsible party agrees to be responsible for in-use provisions of these regulations.

The information required on the package of a certified part remains substantially the same with a few significant exceptions. First, a package need not list all model vehicles for which a part is certified if that information is provided in a catalog rather than on the package, provided access to the catalog is readily available to purchasers of the part. It makes little sense to require parts to be certified unless one is able to determine for which vehicles the part is certified. Therefore, the Agency requires that such information be available to the purchasers of such parts.

Second, the packages no longer need to have a general warranty disclaimer, as EPA believes that it may have overestimated the owner confusion that could result absent such a disclaimer.

The Agency believes that all of the required labelling information is important.

The statement "certified by (name of manufacturer) to EPA standards" is important. This is because consumers should be informed that the parts are certified by the part manufacturer and not by EPA.

If a part has a service interval which is shorter than the service interval for the OE part it is replacing or requires maintenance beyond that required of such OE part, it is important that the vehicle owner be apprised of such. Otherwise, the owner is likely to follow the instructions in the owner's manual and the part is likely to fail in a manner that could cause the vehicle to exceed emission standards and could, in some instances, cause serious and costly vehicle damage which would only be repaired at the owner's cost. Therefore the regulations require that information on any servicing required by a replacement part which goes beyond that required by the OE part replaced must be provided to the vehicle owner.

For the same reasons, if a part is to be installed in a manner different from the OE part, it is important that the instructions for proper installation be available.

G. Maintenance and Submittal of Records

Because this is a self-certification program, questions may arise as to whether a part was properly certified initially or should subsequently be decertified. Therefore, any part manufacturer who chooses to certify parts is required to establish and maintain records regarding each certified part. These records must be made available to EPA upon request.

The Agency believes that all of the specified records are necessary to determine the adequacy and validity of the bases upon which parts have been certified and to assure that all parts sold as certified are equivalent to the parts which were used to determine whether a part should be certified. As stated in the Proposal, most of the data that would be required to be maintained would be generated during the process of certifying the parts. In addition, the final rule reduces from the Proposal the requirements for maintaining records concerning in-use emission-related problems. The final rule requires only that the part manufacturers maintain records of any design, production, or in-service emission-related problems associated with more than 25 of a particular in-use certified part.

Some parties objected to the length of time the Proposal would have required the records to be kept. These parties asserted that due to the great number of parts and the 5-year period in which the records would have to be kept, the files of the part manufacturers would be overloaded with records and the maintenance of such records would be costly.

The Agency realizes the cost and inconvenience associated with maintaining records and as a result desires to minimize all recordkeeping requirements to the extent possible. However, should in-use certified parts be the suspected cause of vehicle emission-related problems, it is important that the Agency have access to the records required to be kept by this rule. The Proposal required the records to be kept for five years because vehicle manufacturers are subject to warranty liability for up to 5 years for each model vehicle, and it is during this period of time that problems with certified parts are most likely to be detected. The Agency notes, however, that some parts will be certified for vehicles which are no longer covered by the warranty or for which the remaining emission warranty period is less than 5 years. For such parts, the part manufacturer will be required only to maintain the records for only 3 years or until the part

manufacturer determines that approximately 80% of all vehicles for which the part has been certified are outside the period of warranty coverage, whichever is longer. However, no records must be kept for more than 5 years. The Agency realizes that, in some cases, the records may not be available for parts on some vehicles that might still need an emission warranty repair. However, in most cases the Agency should have been alerted to problems with parts during the required period. Moreover the lack of records will not prevent a vehicle manufacturer from seeking reimbursement from a part manufacturer. Rather, it may only limit the part manufacturer's ability to demonstrate that the part was properly determined to be eligible for certification.

H. Decertification

The decertification provisions of the final rule have remained substantially unchanged from the Proposal.

Decertification will not occur until the Agency has made a final decision that the part should be decertified. No final decision will be made until after the Agency has provided the part manufacturer with an opportunity to present information and data to the Agency in support of continued certification of that part.

The decertification process will commence when written notice is provided to the part manufacturer indicating the Agency's basis for considering possible decertification of a part. If the part manufacturer wishes to contest this decision, it may provide a written statement addressing why the part should remain certified. Similar to the hearings under § 85.2116, an opportunity to present oral arguments may be granted at the discretion of the Director. In addition, a party adversely affected by a decertification decision shall also have an appeal right similar to the one provided in § 85.2116.

The parties making determinations of whether a part should be decertified are the Director and the Deputy Assistant Administrator. The Agency believes that, contrary to the assertions of some commenters, these parties will be able to make unbiased decisions of whether or not to decertify a part. The Agency encourages part manufacturers to participate in the program. EPA has no reason to try to prevent proper parts from being certified. Moreover, the Agency believes that only these parties will have a sufficient background to make determinations in a timely manner. The Agency believes that improperly certified parts must be decertified as quickly as possible to prevent vehicles from polluting, to prevent vehicle owners from needlessly failing I/M tests, and to prevent vehicle manufacturers from incurring unreasonable (although reimbursable) warranty expenses or from spending too much time handling warranty claims. Since the Agency will not require a part to be decertified until a final decision is made, the Agency believes it is important that the decisionmakers be parties capable of making proper decisions in as short a period of time as possible.

Once a final decision to decertify a part is received by the part manufacturer, the part manufacturer is required to notify its immediate customers (other than retail customers) and offer to replace the decertified parts remaining in the possession of the immediate purchaser with properly certified parts. If no properly certified parts are available, then the part manufacturer must offer to repurchase the decertified parts. This requirement will limit the number of vehicles which will exceed emission standards and fail I/M tests as a result of the decertified part. The Agency realizes that some improperly certified parts will remain on in-use vehicles and in the marketplace. However, in the Agency's opinion, as well as a number of commenters, any replacement or repurchase of parts beyond the immediate customers would become complicated and ineffective.

Regardless of whether a part is eventually decertified, any part previously sold by the part manufacturer as certified will remain certified for purposes of the Section 207(b) warranty. In other words, no Section 207(b) emission warranty claim may be denied on the basis of the use of that part. The part manufacturer, of course, will be liable to vehicle manufacturers for any warranty claims honored where the part is the reason for the failure.

I. Warranty on Certified Parts

Section 207(b) of the Act provides that no emission performance warranty shall be invalid on the basis of a certified part. Based upon this provision, as well as its legislative history, the Agency included a provision in the Section 207(b) emission performance warranty regulations prohibiting vehicle manufacturers from denying emission performance warranty claims resulting from the installation or use of a certified part. A full discussion of this requirement is contained in the preamble to the final emission performance warranty regulations and the comment summary accompanying the final rule. Both of these documents can be found in Public Docket EN–79–6. However, the Agency believes that it is appropriate to repeat some of the discussion here.

The Agency believes that Congress intended that consumers be able to purchase certified parts without having to be concerned about their emission performance warranty coverage. If the Agency were to allow vehicle manufacturers to deny claims by asserting that a certified aftermarket part was the cause of the problem, then vehicle owners would not have this assurance. Rather, vehicle owners would fear that a vehicle manufacturer would merely allege that the part is defective or otherwise improper and deny the claim. This could encourage vehicle owners to use only original equipment, contrary to the legislative intent.

Even if the manufacturers of certified parts warrant that they will reimburse a vehicle owner for repairs that would have been covered under the emission performance warranty had the certified part not been defective, the problem would not be remedied. It will sometimes be difficult for owners to determine whether an aftermarket part caused a vehicle to fail an I/M test because it is defective or because it is not actually equivalent to the OE part it replaced. This could result in neither the vehicle or part manufacturer assuming liability for the repair. If a consumer may be forced to go back and forth between parts manufacturers and vehicle manufacturers, he or she may simply not risk the use of any parts other than OE parts, whether they are certified or not.

In fact, prior to the 1977 Amendments to the Act, EPA had proposed guidelines for a voluntary aftermarket part self-certification program. However, because EPA had no authority to make certification of a part binding on a vehicle manufacturer, the program was considered by many to be anticompetitive and anticonsumer, even if the part manufacturer provided its own warranty with its certified parts. The Senate Select Subcommittee on Environmental Problems Affecting Small Business, in its Report on the Monopolistic Tendencies of Auto Emission Warranty Provisions, H.R. Rep. No. 93–1628, 93rd Cong. 2nd Sess. 31 (December 18, 1974), commenting upon those proposed guidelines, stated:

> The parts certification program merely proliferates the number of warranties without providing any mechanism for adequately determining why the emission control system failed. Thus, should the parts manufacturer dispute the franchised dealer's assertion that the replacement part caused the failure, the consumer is left with no means to resolve the

dispute, other than the court action which would probably be so time consuming as to be prohibitive.

For these reasons the Agency does believe that a Parts Certification Program that did not take the consumer out of such dispute entirely would tend to inhibit the use of certified parts and would not carry out the legislative intent.

Although the Agency requires that a vehicle manufacturer honor an emission performance warranty claim necessitated by a failing certified part, the Agency does not believe it would be equitable unless the Agency provides a means for the vehicle manufacturer to be reimbursed by the manufacturer of the certified part. Therefore, the Proposal provided that as a condition to certification, part manufacturers would have to agree to reimburse vehicle manufacturers for all emission performance warranty costs resulting from repairs necessitated by defective or nonequivalent certified parts.

Some commenters agreed that vehicle manufacturers must never deny an emission performance warranty claim on the basis of the use of a certified aftermarket part. However, little support was given to the manner in which the Proposal set forth the certified aftermarket part manufacturer's obligation to reimburse a vehicle manufacturer for warranty expenses incurred as a result of a certified part. Some vehicle manufacturers did not believe that the Proposal would provide them with any real legal remedy against parts manufacturers for expenses incurred as a result of certified parts. However, Ford Motor Company suggested that perhaps the notice of intent to certify could be viewed as being a third party beneficiary contract, with the vehicle manufacturer being the beneficiary.

Some commenters from the aftermarket industry believed that the Proposal would have required manufacturers of certified parts to reimburse vehicle manufacturers on demand, without any opportunity to inspect the part or the vehicle to determine whether the certified part was actually the cause of a vehicle's failing an I/M test. Moreover, these commenters believed that a part manufacturer who refuses to reimburse a vehicle manufacturer in any case, however justified, will risk decertification of its parts.

Several commenters suggested that EPA require, as a condition of certification, that a part manufacturer provide a warranty stating that the part, in and of itself, when properly installed in a vehicle engine (in which all other emissions-related parts are properly functioning) will not cause the vehicle or engine to exceed applicable exhaust emission standards for the certified interval or the remainder of the Section 207(b) emission performance warranty period, whichever occurs first. This warranty would allow any party, including vehicle owners and manufacturers, to make a claim for reimbursement. This warranty, however, would be subject to the following conditions: (1) A nonconformity of the vehicle or engine which should be covered under the emission performance warranty must exist; (2) the certifier's obligation would be limited to the cost of repair or replacement of the certified part, and would not include consequential damages; and (3) the warranty would be limited to the emission-related characteristics of the part as determined by the certification procedures applicable at the time of certification.

The idea of having part manufacturers provide warranties under which any parties having incurred valid warranty expenses may recover has considerable appeal. First, it would provide vehicle manufacturers with a legal remedy for reimbursement, namely, breach of warranty. Second, although this point was not specifically commented on by any party, presumably under such an approach vehicle owners would be free to bring their vehicles to repair facilities of their choosing rather than a vehicle manufacturer's designated warranty outlet and still be reimbursed for warranty claims necessitated by certified parts. This could lessen the potential anticompetitive effect of the warranty perceived by certain members of the automotive aftermarket industry. In addition, vehicle owners would likely find this convenient.

The Agency believes that there are some problems with the recommended warranty scheme. For instance, as stated in an earlier letter from APEC, such a warranty could be disproportionately burdensome to small part manufacturers who may be unable to set up a system dealing with individual consumers. In addition, the Agency believes that the second condition is too limiting. It is unreasonable to expect a vehicle manufacturer to bear the cost of the repair of a part, such as a catalytic converter, which failed as a result of a defective certified part and to be reimbursed only for the cost of repairing or replacing the certified part. Rather, it is only reasonable for the part manufacturer to reimburse the vehicle manufacturer for all valid emission performance warranty expenses, including administrative costs, incurred as a result of a certified part.

The Agency has therefore decided that in order to carry out the purposes of Section 207(b) it is necessary to require as a condition to certification that a part manufacturer warrant that its parts, if properly installed, will not cause a vehicle to fail Federal emission standards, as adjudged by an EPA approved emission short test. The minimum obligation under this warranty shall be to reimburse vehicle manufacturers for all reasonable costs, including handling and other administrative costs, incurred under the emission performance warranty as a result of the certified part. However, EPA encourages part manufacturers to expand their obligation under this warranty to include reimbursement to other parties such as individual vehicle owners or independent repair facilities.

EPA has received a staff opinion from the Bureau of Consumer Protection of the Federal Trade Commission concurring with the conclusion of EPA that since this warranty is governed by Federal law, it is exempt from the requirements of the Magnuson-Moss Act. Therefore, although the Agency encourages part manufacturers to comply with the Magnuson-Moss Act and the regulations issued thereunder, the Agency does not believe that they are required to do so.

The vehicle manufacturers asserted that some part manufacturers inevitably would go out of business or otherwise not be in a position to live up to their obligations to reimburse vehicle manufacturers for warranty expenses. Some suggested that part manufacturers be required to post bonds covering potential claims by vehicle manufacturers. These commenters asserted that vehicle manufacturers', need to be protected from incurring non-reimbursable warranty expenses resulting from use of parts other than their own.

The Agency believes that these arguments are far too speculative. Therefore, the Agency is not persuaded that it is necessary to require any showing of financial stability or bonding prior to a part manufacturer's being allowed to certify parts. Moreover, no data was brought to the Agency's attention of situations where part manufacturers have sold a great number of parts that have caused extensive damage to cars and then pulled out of the market leaving consumers no recourse for recovery of damages. Although the regulations presently require no showing of an ability to

reimburse vehicle manufacturers when appropriate, the Agency will consider amending the regulations if evidence is presented that suggests significant problems could occur or are occurring.

K. Emission-Critical Parameters

The Agency received comments regarding the individual emission-critical parameters and suggested test procedures for the 18 parts set out in the Proposal. As a result of these comments, the Agency has modified slightly many of the emission-critical parameters and/or their related test procedures. In addition, commenters raised such significant concerns regarding engine valves, camshafts, pistons, electronic inductive ignition system and components and electronic inductive distributors that the Agency has decided not to promulgate final emission-critical parameters for these parts. In particular, the Agency is concerned about whether more stringent durability requirements for these parts are necessary.

Most of the comments concerning the 13 parts for which final emission-critical parameters have been promulgated recommended increased specified durability requirements. Most of the recommendations, however, were unrealistic and far too severe to reflect real world conditions. In addition, many were far more severe than Society of Automotive Engineers (SAE) testing procedures. The Agency believes that requiring burdensome and unrealistic tests would unduly discourage participation in the program. Therefore, except in a few instances, the standards were not changed to include more elaborate durability requirements. The Agency notes, however, that this does not relieve part manufacturers of their responsibility to determine that their parts are, in fact, durable. Rather, the Agency, at least in some instances, is allowing individual part manufacturers to determine that their parts are durable in the manner they deem best. The Agency will, however, act to assure that certified parts are capable of functioning adequately for their useful life. The Agency may decertify and prevent the certification of non-durable parts. Moreover, the certifying part manufacturer is required to warrant its parts as set forth in § 85.2117.

One change adopted by the Agency was in response to comments that the temperatures set out in the Proposal for testing carburetor accelerator pumps, breaker points, capacitors/condensers, distributor caps and/or rotors, inductive system coils, primary resistors, and breaker point distributors were so severe as to be unrepresentative of the expected environments of the parts. The Agency agrees with these comments and, therefore, has modified the temperatures specified.

In addition to this change, the Agency also modified the standards and/or test procedures for particular parts. A more detailed discussion of the comments received for individual part standards and related test procedures are discussed in a separate support document located at VI—2 in Public Docket EN–79–8.

Evaluation Plan

EPA intends to review the effectiveness and need for continuation of the provisions contained in this action within five years. In particular, the Agency will solicit comments from the affected parties concerning how well the program is serving the purpose of limiting the anticompetitive effects of the emission warranties. In addition, the Agency will be interested in determining the consumer protection implications of the program as well as the effect the program is having on in-use compliance of motor vehicles with emission standards, including any increase or decrease in burdens the program may be putting on motor vehicle manufacturers.

Reporting and Recordkeeping Requirements

These regulations do impose new reporting and recordkeeping requirements on aftermarket part manufacturers that choose to take advantage of the certification program. EPA prepared a Reports Impact Analysis which is included in the Public Docket. As previously stated, the Agency does not believe the reporting requirement is burdensome.

Under EPA's new "sunset" policy for reporting requirements in regulations, the reporting requirements in this regulation will automatically expire five years from today's date unless EPA takes affirmative steps to extend them. To accomplish this, a provision automatically terminating the reporting requirements at that time has been included in the text of the final regulations.

Under Section 307(b)(1) of the Clean Air Act, 42 U.S.C 7607, judicial review of this action is available *only* by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit within 60 days of November 25, 1980. Under Section 307(b)(2) of the Clean Air Act, the requirements which are the subject of today's notice may not be challenged later in judicial proceedings brought by EPA to enforce these requirements.

Note.—The Agency has determined that this document is not a "significant regulation" requiring the preparation of a Regulatory Analysis under Executive Order 12044.

Dated: November 13, 1980.

Douglas M. Costle,

Administrator.

Accordingly, Subpart V of Part 85 of Title 40 of the Code of Federal Regulations is amended by adding the sections set forth below.

Subpart V—Emission Control System Performance Warranty Regulations and Voluntary Aftermarket Part Certification Program

Sec.

85.2112 Applicability.
85.2113 Definitions.
85.2114 Basis of Certification.
85.2115 Notification of Intent to Certify.
85.2116 Objections to Certification.
85.2117 Warranty.
85.2118 Changes After Certification.
85.2119 Labelling Requirements.
85.2120 Maintenance and Submittal of Records.
85.2121 Decertification.
85.2122 Emission-Critical Parameters.
Appendix: Recommended Test Procedures and Test Criteria and Recommended Durability Procedures to Demonstrate Compliance With Emission Related Standards.

Authority: Secs. 207, 208, 301(a), Clean Air Act, as amended (42 U.S.C. 7541, 7542(a), 7601(a))

Subpart V—Emission Control System Performance Warranty Regulations and Voluntary Aftermarket Part Certification Program

§ 85.2112 Applicability.

The provisions of §§ 85.2112 through 85.2122 apply to all automotive aftermarket parts (a) for which emission-critical parameters have been set forth in § 85.2122, and (b) which are to be installed in or on 1968 and later model year vehicles.

§ 85.2113 Definitions.

As used in this subpart, all terms not defined shall have the meaning given them in the Act:

(a) "Act" means Part A of Title II of the Clean Air Act, 42 U.S.C. 7421 *et seq.* (formerly 42 U.S.C. 1857 *et seq.*) as amended.

(b) "Aftermarket Part" means any part offered for sale for installation in or on a motor vehicle after such vehicle has left the vehicle manufacturer's production line.

(c) "Aftermarket Part Manufacturer" means

(1) A manufacturer of an aftermarket part or

(2) A party that markets aftermarket parts under its own brand name, or

(3) A rebuilder of original equipment or aftermarket parts, or

(4) A party that licenses others to sell its parts.

(d) "Agency" means the Environmental Protection Agency.

(e) "Deputy Assistant Administrator" means the Deputy Assistant Administrator for Mobile Source, Noise and Radiation Enforcement of the Agency or his or her delegate.

(f) "Certified Aftermarket Part" means any aftermarket part which has been certified pursuant to this subpart.

(g) "Director" means the Director of the Manufacturer's Operations Division of the Office of Enforcement of the Agency or his or her delegate.

(h) "Emission Warranty" means those warranties given by vehicle manufacturers pursuant to section 207 of the Act.

(i) "Emission-Related Standards" or "Emission-Critical Parameters" means those critical parameters and tolerances which, if equivalent from one part to another, will not cause the vehicle to exceed applicable emission standards with such parts installed.

(j) "Engine Family" means the basic classification unit of a vehicle's product line for a single model year used for the purpose of emission-data vehicle or engine selection and as determined in accordance with 40 CFR 86.078–24.

(k) "Vehicle or Engine Configuration" means the specific subclassification unit of an engine family as determined by engine displacement, fuel system, engine code, transmission and inertia weight class as applicable.

§ 85.2114 Basis of Certification.

(a) An automotive aftermarket part manufacturer may certify a part either:

(1) On the basis of demonstrating conformance of that part with all of the relevant Emission-Critical Parameters set forth for that part in § 85.2122; or

(2) On the basis of performing emission tests in each applicable vehicle configuration for which the part is to be certified in accordance with the requirements of this section.

(b) The only emission test on which certification can be made pursuant to paragraph (a)(2) of this section is the Federal Test Procedure as set forth in the applicable portions of 40 CFR Part 86 (except as provided in paragraph (b)(3)).

(1) At least two emission tests are required in order to certify an aftermarket part pursuant to paragraph (a)(2). These tests shall be performed according to the Federal Test Procedure on a vehicle set to the vehicle manufacturer's specifications and in which the part to be certified has been installed.

(2) The test results must demonstrate that the proper installation of the certified aftermarket part will not cause the vehicle to fail to meet any applicable Federal emission requirements under section 202 of the Act.

(3) The following portions of the Federal Test Procedure are not required to be performed when certifying a part in accordance with paragraph (a)(2):

(i) Compliance with evaporative emissions standard if the manufacturer of that part has a reasonable basis for believing that the use of the part has no effect on the vehicle's evaporative emissions,

(ii) Compliance with exhaust emissions standard if the part manufacturer has a reasonable basis for believing that the part affects only the evaporative emissions of a vehicle, and

(iii) Other portions therein which the part manufacturer believes are not relevant provided that the part manufacturer has requested and been granted a waiver in writing by the Director for excluding such portion.

(4) For the purpose of certifying parts on the basis of emission testing for use in vehicle or engine configurations other than those tested under paragraph (a)(2), the certifier may apply the results of tests performed under paragraph (a)(2) upon a showing set out in the notification of intent to certify that the configuration tested represents the "worst case" with respect to emissions of those configurations for which the results are to be applicable.

(i) Such a showing shall include:

(A) A technical discussion that supports the conclusion that the configuration tested represents the worst case, and

(B) All data that support the above conclusion. (ii) The worst case configuration shall be that configuration which is least likely to meet the applicable emission standards among those configurations for which the emission test results under paragraph (a)(2) are to be applied. This determination:

(*1*) Shall be based on a technical judgment of the impact of the particular design or calibration of a particular parameter or combination of parameters and/or an analysis of appropriate data, and

(*2*) Shall only be applicable for configurations that are required to meet the same or less stringent (higher) emission standards than those applicable to the configuration tested.

(c) An aftermarket part may be certified in accordance with § 85.2114(a)(1) only if the part's emission-critical parameters as set forth in § 85.2122(a) are equivalent to those of the original equipment part it is to replace.

(1) A part that replaces more than one part may be certified in accordance with § 85.2114(a)(1) only if the part meets the applicable parameters of § 85.2122 for each part or parts which the part is to replace. If a part is to replace more than one part or an entire system, compliance must be deomonstrated for all emission critical parameters involved, except those which relate solely to the interface between the parts being replaced by the modified part.

(2) Compliance with the Emission-Critical Parameters may be demonstrated by compliance with the relevant Test Procedure and Criteria specified in the Appendix to this Subpart V. An aftermarket part manufacturer may choose to utilize other tests and methods to demonstrate compliance with § 85.2114(a)(1) provided that the tests and methods are of equal validity and reliability to those provided in the Appendix.

(3) An aftermarket part manufacturer may certify a part on the basis of conformance with all Emission-Critical Parameters only after the part manufacturer has performed such tests, analyses, or other procedures necessary to ascertain with a high degree of certainty the emission-critical parameter specifications and tolerances for the original equipment part for which a certified part is to be a replacement.

(i) If information is available to identify the applicable emission-critical parameters, the prospective certifier must use such information.

(ii) If sampling and analysis of original equipment parts is relied upon, the prospective certifier must use sound statistical sampling techniques to ascertain the mean and range of the applicable emission parameters.

(4) Certification in accordance with § 85.2114(a)(1) or (2) must be based upon tests utilizing representative production aftermarket parts selected in a random manner in accordance with accepted statistical procedures.

(d) Before a part may be certified pursuant to this subpart, evidence must exist to demonstrate that the part will not cause a vehicle to exceed emission standards during the full interval for which the part is to be certified.

(1) For parts without a scheduled replacement, this interval shall be the useful life of the motor vehicle or motor vehicle engine.

(2) If a Recommended Durability Procedure is contained in the Appendix to this Subpart V for a part, then that test or another test of equivalent validity and reliability shall be used to demonstrate the durability of the part.

(3) An aftermarket part manufacturer may use reasonable engineering

analyses or testing to demonstrate durability for all parts for which no Recommended Durability Procedure is contained in the Appendix.

(4) If any provision of 40 CFR Part 86 establishes a minimum replacement or service interval for a part during vehicle or engine certification, then no aftermarket part of that type may be certified with a shorter replacement or service interval.

(e) Installation of any certified part shall not result in the removal or rendering inoperative of any original equipment component, require the readjustment of any component to other than the original manufacturer specifications, cause or contribute to an unreasonable risk to the public health, welfare or safety, or result in any additional range of parameter adjustability or accessibility to adjustment than that of the vehicle manufacturer's parts.

§ 85.2115 Notification of Intent To Certify.

(a) At least 45-days prior to the sale of any certified automotive aftermarket part, notification of the intent to certify must be received by the Agency.

(1) The notification shall include:

(i) Identification of each part to be certified.

(ii) Identification of all vehicle or engine configurations for which the part is being certified including make(s), model(s), year(s), engine size(s) and all other specific configuration characteristics necessary to assure that the part will not be installed in any configuration for which it has not been certified.

(iii) A description of the tests and methods utilized to demonstrate compliance with §§ 85.2114(a)(1) and 85.2114(c); *except that*, if the procedure utilized is recommended in the Appendix, then only a statement to this effect is necessary. If certification is sought in accordance with § 85.2114(a)(2), the results of all emission tests performed shall be included. A description of all statistical methods and analyses used to determine the emission-critical parameters of the original equipment parts and compliance of the certified part(s) with those parameters including numbers of parts tested, selection criteria, means, variance, etc.

(iv) A statement that the aftermarket part manufacturer accepts, as a condition of certification, the obligation to provide and comply with the warranty contained in § 85.2117;

(v) A statement of commitment and willingness to comply with all the relevant terms and conditions of this subpart;

(vi) The service intervals of the part, including maintenance and replacement intervals in months and/or miles, as applicable, if different than the original equipment requirements;

(vii) A statement, if applicable, that the part will not meet the labelling requirements of § 85.2119(a) and a description of the markings the aftermarket manufacturer intends to put on the part in order to comply with § 85.2119(b);

(viii) The information required pursuant to § 85.2114(b)(4) if applicable; and

(ix) The office or officer of the part manufacturer authorized to receive correspondence regarding certification requirements pursuant to this subpart.

(2) The notification shall be signed by an individual attesting to the accuracy and completeness of the information supplied in the notification.

(3) Notification to the Agency shall be by certified mail or another method by which date of receipt can be established.

(4) The notification shall be submitted to: Director, Manufacturer's Operations Division (EN–340), 401 "M" Street SW., Washington, D.C. 20460.

(b) A part may be sold as certified 45 days after the receipt by the Agency of the notification given pursuant to this subsection provided that the Agency has not notified the part manufacturer otherwise.

§ 85.2116 Objections to Certification.

(a) At any time prior to the end of the 45-day period after a notification of intent to certify an aftermarket part is received as specified in § 85.2115, the Director may notify the manufacturer of the aftermarket part that such aftermarket part may not be certified pending further investigation. The basis upon which this notification shall be made may include, but not be limited to, information or test results which indicate:

(1) Compliance with the applicable emission-critical parameters was not achieved or that the testing methods used to demonstrate compliance with the emission-critical parameters were inadequate;

(2) The part is to be certified on the basis of emission testing, and the procedure used in such tests was not in compliance with those portions of the Federal Test Procedure not waived pursuant to § 85.2114(b);

(3) Use of the certified part may cause a vehicle to exceed any applicable emission requirements;

(4) The durability requirement of § 85.2114(c) has not been complied with;

(5) Use of the certified part could cause or contribute to an unreasonable risk to public health, welfare or safety in its operation or function;

(6) Installation of the certified part requires procedures or equipment which would likely cause it to be improperly installed under normal conditions or would likely result in a vehicle being misadjusted; or

(7) Information and/or data required to be in the Notification of intent to certify § 85.2115 have not been provided.

(b) The aftermarket part manufacturer must respond in writing to the statements made in the notification by the Director, or the aftermarket part manufacturer shall withdraw its notification of intent to certify.

(1) Any party interested in the outcome of a decision as to whether a part may be certified may provide the Director with any relevant written information up to ten days after the manufacturer responds to the Director's objection.

(2) Any interested party may request additional time to respond to the information submitted by the part manufacturer. The Director upon a showing of good cause by the interested party may grant an extension of time to reply up to 30 days.

(3) The part manufacturer may reply to information submitted by interested parties. Notification of intent to reply shall be submitted to the Director within 10 days of the date information from interested parties is submitted to the Director.

(4) The Director may, at his or her discretion, allow oral presentations by the aftermarket manufacturer or any interested party in connection with a contested part certification.

(c) If an objection has been sent to an aftermarket part manufacturer pursuant to paragraph (a) of this section, the Director shall, after reviewing all pertinent data and information, render a decision and inform the aftermarket part manufacturer in writing as to whether such part may be certified and, if so, under what conditions the part may be certified. The written decision shall include an explanation of the reasons therefor.

(1) The decision by the Director shall be provided to the manufacturer within 30 working days of receipt of all necessary information by the manufacturer or interested parties, or of the date of any oral presentation regarding the certification, whichever occurs second.

(2) A copy of the decision shall be sent to all identified interested parties.

(3) Within 20 days of receipt of a decision made pursuant to this

subsection, any party may file a written appeal to the Deputy Assistant Administrator. The Deputy Assistant Administrator may, in his or her discretion, allow additional oral or written submissions, prior to rendering a final decision. The schedule for such submission shall be in accordance with the schedule specified in § 85.2116(b).

(4) If no party files an appeal with the Deputy Assistant Administrator within 20 days, then the decision of the Director shall be final.

(5) The Deputy Assistant Administrator shall make a final decision regarding the certification of a part within 30 working days of receipt of all necessary information by the part manufacturer or from the date of any oral presentation, whichever occurs later.

(6) A copy of all final decisions made under this section shall be published in the Federal Register.

§ 85.2117 Warranty.

(a) As a condition of certification, the aftermarket part manufacturer shall warrant that if the certified part is properly installed it will not cause a vehicle to exceed Federal emission requirements as adjudged by an emission short test approved by EPA under section 207(b)(1) of the Act.

(b) The aftermarket part manufacturer's minimum obligation under this warranty shall be to reimburse vehicle manufacturers for all reasonable expenses incurred as a result of honoring a valid emission performance warranty claim which arose because of the use of the certified aftermarket part.

(c) Nothing in this section precludes a part manufacturer from expanding its warranty to include reimbursement to any additional parties it desires.

§ 85.2118 Changes after certification.

The aftermarket part manufacturer shall be required to recertify any part which:

(a) Was certified pursuant to § 85.2114(a)(1) and to which modifications are subsequently made which could affect the results of any test or judgment made that the part meets all of the applicable Emission-Critical Parameters;

(b) Was certified pursuant to § 85.2114(a)(2) and to which modifications are made which are likely to affect emissions or the capability of the part to meet any other requirement of this subpart; or

(c) Was certified and is subsequently modified in a manner affecting the durability of the part or any emission control device, engine or the vehicle upon which such part is installed.

§ 85.2119 Labelling requirements.

(a) Except for those components specified in paragraph (b) of this section, each part certified pursuant to these regulations shall have "Certified to EPA Standards" and the name of the aftermarket part manufacturer or other party designated to determine the validity of warranty claims placed on the part.

(b) In lieu of the information contained in paragraph (a) of this section, the part may contain identification markings that can be used to refer to the information required in paragraph (a) of this section. A description of the marking and notification that such marking is intended in lieu of the information required above, must be made to the Agency in the Notification of Intent to Certify.

(c) The package in which the certified aftermarket part is contained must have the following information conspicuously placed thereon:

(1) The statement "Certified by (name of manufacturer or warranter) to EPA Emission Standards",

(2) A list of the vehicles or engines (in accordance with § 85.2115(a)(1)(ii)) for which the part has been certified,

(3) A statement of the maintenance or replacement interval for which the part has been certified, if the interval is of a shorter duration than the interval specified in the written instructions for proper maintenance and use for the original equipment,

(4) A description of the maintenance necessary to be performed on the part in the proper maintenance and use of the part, if such maintenance is in addition to or different from that maintenance necessary on the original equipment part, and

(5) The instructions for proper installation if different from the vehicle manufacturer's recommended installation instruction for that part.

(d) The information required by paragraphs (c)(4) and (5) of this section may be provided on a written insert with the certified aftermarket part if the insert also contains the information required in paragraphs (c)(1), (2) and (3) of this section.

(e) The information required by paragraph (c)(2) of this section may be provided in a catalog rather than on the package or on an insert: *Provided*, That access to the catalog is readily available to purchasers and installers of the part.

(f) When an aftermarket part manufacturer desires to certify existing in-service stocks of its products, it may do so provided:

(1) The part does not differ in any operational or durability characteristic from the aftermarket parts specified in the notification made pursuant to § 85.2115, and

(2) A supplemental information sheet is made available to all parties selling the part.

(i) The supplemental sheet shall be made available in sufficient quantities so that it can be provided with all parts sold as certified, and

(ii) The supplemental sheet shall contain all of the information specified in paragraph (c) of this section.

§ 85.2120 Maintenance and Submittal of Records.

(a) For each certified aftermarket part, the aftermarket part manufacturer must establish, maintain and retain for 5 years the following adequately organized and indexed records:

(1) Detailed production drawings showing all dimensions, tolerances, performance requirements and material specifications and any other information necessary to completely describe the part;

(2) A description of the testing program, including all production part sampling techniques used to verify compliance of the certified aftermarket part with the applicable Emission-Critical Parameters and durability requirements;

(3) All data obtained during testing of the part and subsequent analyses based on that data, including the milege and the vehicle or engine configuration determinants if emission testing is utilized as the basis for certification;

(4) All information used in determining those vehicles for which the part is represented as being equivalent from an emissions standpoint to the original equipment part;

(5) A description of the quality control plan used to monitor production and assure compliance of the part with the applicable certification requirements;

(6) All data taken in implementing the quality control plan, and any subsequent analyses of that data;

(7) A description of all the methodology, analysis, testing and/or sampling techniques used to ascertain the emission critical parameter specifications of the originial equipment part; and

(8) All in-service data, analyses performed by the manufacturer and correspondence with vendors, distributors, consumers, retail outlets or vehicle manufacturers regarding any design, production or in-service

problems associated with 25 or more of any certified part.

(b) The records required to be maintained in paragraph (a) of this section shall be made available to the Agency upon the written request of the Director.

(c) For parts certified only for vehicles with less than 5 years of emission performance warranty coverage remaining, records must be kept for 3 years or until they determine that approximately 80% of the applicable vehicles are outside the warranty period, whichever occurs second.

(d) This section shall expire 5 years from the effective date of this regulation unless renewed prior to that date.

§ 85.2121 Decertification.

(a) The Director may notify an aftermarket part manufacturer that the Agency has made a preliminary determination that one or more parts should be decertified.

(1) Such a preliminary determination may be made if there is reason to believe that the part manufactured has failed to comply with §§ 85.2112 through 85.2122. Information upon which such a determination will be made includes but is not limited to the following.

(i) Tests required to be performed to demonstrate compliance of the part with the applicable Emission-Critical Parameters

(A) Were not performed on the part(s), or

(B) Were insufficient to demonstrate compliance;

(ii) The part was certified on the basis of emission tests, and

(A) The procedures used in such tests were not in substantial compliance with a portion or portions of the Federal Test Procedure which were not waived pursuant to § 85.2114(b)(4); or

(B) The emission results were not in compliance with the requirements of § 85.2114(b);

(iii) Use of the certified part is causing vehicle emissions to exceed emission requirements for any regulated pollutant;

(iv) Use of the certified part causes or contributes to an unreasonable risk to public health, welfare or safety or severely degrades drivability operation or function;

(v) The part has been modified in a manner requiring recertification pursuant to § 85.2118; or

(vi) The manufacturer of such part has not established, maintained or retained the records required pursuant to § 85.2120.

(2) Notice of a preliminary determination to decertify shall contain:

(i) A description of the noncomplying part(s);

(ii) The basis for the Director's preliminary decision; and

(iii) The date by which the manufacturer must

(A) Terminate the sale of the part as a certified part, or

(B) Make the necessary change (if so recommended by the Agency), and

(C) Request an opportunity in writing to dispute the allegations of the preliminary decertification.

(b) If the aftermarket part manufacturer requests an opportunity to respond to the preliminary determination, the manufacturer and other parties interested in the Director's decision whether to decertify a part may, within 15 days of the date of the request, submit written presentations, including the relevant information and data, to the Director. The Director, in his or her discretion, may provide an opportunity for oral presentations.

(1) Any interested party may request additional time to respond to the information submitted by the part manufacturer. The Director upon a showing of good cause by the interested party may grant an extension of time to reply up to 30 days.

(2) The part manufacturer may have an extension of up to 30 days to reply to information submitted by interested parties. Notification of intent to reply shall be submitted to the Director within 10 days of the date information from interested parties is submitted to the Director.

(c) If a part manufacturer has disputed the allegations of the preliminary decisions, the Director shall, after reviewing any additional information, notify the aftermarket part manufacturer of his or her decision whether the part may continue to be sold as certified. This notification shall include an explanation upon which the decision was made and the effective date for decertification, where appropriate.

(d) Within 20 days from the date of a decision made pursuant to paragraph (c) of this section, any adversely affected party may appeal the decision to the Deputy Assistant Administrator.

(1) A petition for appeal to the Deputy Assistant Administrator must state all of the reasons why the decision of the Director should be reversed.

(2) The Deputy Assistant Administrator may, in his or her discretion, allow additional oral or written testimony.

(3) If no appeal is filed with the Deputy Assistant Administrator within the permitted time period, the decision of the Director shall be final.

(e) If a final decision is made to decertify a part under paragraph (d) of this section, the manufacturer of such part shall notify his immediate customers (other than retail customers) that, as of the date of the final determination, the part in question has been decertified. The part manufacturer shall offer to replace decertified parts in the customer's inventory with certified replacement parts or, if unable to do so, shall at the customer's request repurchase such inventory at a reasonable price.

(f) Notwithstanding the requirements of paragraph (e) of this section, a part purchased by a vehicle owner as certified, shall be considered certified pursuant to this subpart.

§ 85.2122 Emission-Critical Parameters.

(a) The following parts may be certified in accordance with § 85.2114(a)(1):

(1) *Carburetor Vacuum Break (Choke Pull-Off).* (i) The emission-critical parameters for carburetor vacuum breaks are:

(A) Diaphragm Displacement

(B) Timed Delay

(C) Modulated Stem Displacement

(D) Modulated Stem Displacement Force

(E) Vacuum Leakage

(ii) For the purposes of this paragraph:

(A) "Diaphragm Displacement" means the distance through which the center of the diaphragm moves when activated. In the case of a non-modulated stem, diaphragm displacement corresponds to stem displacement.

(B) "Timed Delay" means a delayed diaphragm displacement controlled to occur within a given time period.

(C) "Modulated Stem Displacement" means the distance through which the modulated stem may move when actuated independent of diaphragm displacement.

(D) "Modulated Stem Displacement Force" means the amount of force required at start and finish of a modulated stem displacement.

(E) "Vacuum Leakage" means leakage into the vacuum cavity of a vacuum break.

(F) "Vacuum Break" ("Choke Pull-off") means a vacuum-operated device to open the carburetor choke plate a predetermined amount on cold start.

(G) "Modulated Stem" means a stem attached to the vacuum break diaphragm in such a manner as to allow stem displacement independent of diaphragm displacement.

(H) "Vacuum Purge System" means a vacuum system with a controlled air flow to purge the vacuum system of undesirable manifold vapors.

(2) *Carburetor Choke Thermostats.* (i) The emission-critical parameters for all Choke Thermostats are:

(A) Thermal Deflection Rate

(B) Mechanical Torque Rate

(C) Index Mark Position

(ii) The emission-critical parameters for Electrically-Heated Choke Themostats are:

(A) Those parameters set forth in subparagraph (2)(i) of this paragraph

(B) Time to rotate coil tang when electrically energized

(C) Electrical circuit resistance

(D) Electrical switching temperature

(iii) For the purpose of this paragraph:

(A) "Choke" means a device to restrict air flow into a carburetor in order to enrich the air/fuel mixture delivered to the engine by the carburetor during cold-engine start and cold-engine operation.

(B) "Thermostat" means a temperature-actuated device.

(C) "Electrically-heated Choke" means a device which contains a means for applying heat to the thermostatic coil by electrical current.

(D) "Thermostatic Coil" means a spiral-wound coil of thermally-sensitive material which provides rotary force (torque) and/or displacement as a function of applied temperature.

(E) "Thermostatic Switch" means an element of thermally-sensitive material which acts to open or close an electrical circuit as a function of temperature.

(F) "Mechanical Torque Rate" means a term applied to a thermostatic coil, defined as the torque accumulation per angular degree of deflection of a thermostatic coil.

(G) "Thermal Deflection Rate" means the angular degrees of rotation per degree of temperature change of the thermostatic coil.

(H) "Index or Index Mark" means a mark on a choke thermostat housing, located in a fixed relationship to the thermostatic coil tang position to aid in assembly and service adjustment of the choke.

(I) "PTC Type Choke Heaters" means a positive termperature coefficient resistant ceramic disc capable of providing heat to the thermostatic coil when electrically energized.

(3) *Carburetor Accelerator Pumps.* (i) The emission-critical parameter for accelerator pumps (plungers or diaphragms) is the average volume of fuel delivered per stroke by the pump within prescribed time limits.

(ii) For the purpose of this paragraph an "Accelerator Pump (Plunger or Diaphragm)" means a device used to provide a supplemental supply of fuel during increasing throttle opening as required.

(4) *Positive Crankcase Ventilation (PCV) Valves.* (i) The emission-critical parameter for a PCV valve is the volume of flow as a function of pressure differential across the valve.

(ii) For the purposes of this paragraph a "PCV Valve" means a device to control the flow of blow-by gasses and fresh air from the crankcase to the fuel induction system of the engine.

(5) *Breaker Points.* (i) The emission-critical parameters for breaker points are:

(A) Bounce

(B) Dwell Angle

(C) Contact Resistance

(ii) For the purposes of this paragraph:

(A) "Breaker Point" means a mechanical switch operated by the distributor cam to establish and interrupt the primary ignition coil current.

(B) "Bounce" means unscheduled point contact opening(s) after initial closure and before scheduled reopening.

(C) "Dwell Angle" means the number of degrees of distributor mechanical rotation during which the breaker points are conducting current.

(D) "Contact Resistance" means the opposition to the flow of current between the mounting bracket and the insulated terminal.

(6) *Capacitors/Condensers.* (i) The emission-critical parameters for capacitors/condensers are:

(A) Capacitance

(B) Series Resistance

(C) Breakdown Voltage

(ii) For the purposes of this paragraph:

(A) "Capacitance" means the property of a device which permits storage of electrically-separated charges when differences in electrical potential exist between the conductors and measured as the ratio of stored charge to the difference in electrical potential between conductors.

(B) "Series Resistance" means the sum of resistances from the condenser plates to the condenser's external connections.

(C) "Breakdown Voltage" means the voltage level at which the capacitor fails.

(D) "Capacitor/Condenser" means a device for the storage of electrical energy consisting of two oppositely charged conducting plates separated by a dielectric and which resists the flow of direct current.

(7) *Distributor Caps and/or Rotors.* (i) The emission-critical parameters for distributor caps and/or rotors are:

(A) Physical and Thermal Integrity

(B) Dielectric Strength

(C) Flashover

(ii) For the purposes of this paragraph:

(A) "Flashover" means the discharge of ignition voltage across the surface of the distributor cap and/or rotor rather than at the spark plug gap.

(B) "Dielectric Strength" means the ability of the material of the cap and/or rotor to resist the flow of electric current.

(C) "Physical and Thermal Integrity" means the ability of the material of the cap and/or rotor to resist physical and thermal breakdown.

(8) *Spark Plugs.* (i) The emission critical parameters for spark plugs are:

(A) Heat Rating

(B) Gap Spacing

(C) Gap Location

(D) Flashover

(E) Dielectric Strength

(ii) For the purposes of this paragraph:

(A) "Spark Plug" means a device to suitably deliver high tension electrical ignition voltage to the spark gap in the engine combustion chamber.

(B) "Heat Rating" means that measurement of engine indicated mean effective pressure (IMEP) value obtained on the engine at a point when the supercharge pressure is 25.4mm (one inch) Hg below the preignition point of the spark plug, as rated according to SAE J549A Recommended Practice.

(C) "Gap Spacing" means the distance between the center electrode and the ground electrode where the high voltage ignition arc is discharged.

(D) "Gap Location" means the position of the electrode gap in the combustion chamber.

(E) "Dielectric Strength" means the ability of the spark plug's ceramic insulator material to resist electrical breakdown.

(F) "Flashover" means the discharge of ignition voltage at any point other than at the spark plug gap.

(9) *Inductive System Coils.* (i) The emission-critical parameters for inductive system coils are:

(A) Open Circuit Voltage Output

(B) Dielectric Strength

(C) Flashover

(D) Rise Time

(ii) For the purposes of this paragraph:

(A) "Coil" means a device used to provide high voltage in an inductive ignition system.

(B) "Flashover" means the discharge of ignition voltage across the coil.

(C) "Dielectric Strength" means the ability of the material of the coil to resist electrical breakdown.

(D) "Rise Time" means the time required for the spark voltage to increase from 10% to 90% of its maximum value.

(10) *Primary Resistors.* (i) The emission-critical parameter for primary resistors is the DC resistance.

(ii) For the purpose of this paragraph, a "Primary Resistor" means a device used in the primary circuit of an inductive ignition system to limit the flow of current.

(11) *Breaker Point Distributors.* (i) The emission-critical parameters for breaker point distributors are:

(A) Spark Timimg

(*1*) Centrifugal Advance Characteristics

(*2*) Vacuum Advance Characteristics

(B) Dwell Angle

(C) Breaker point contact operation

(D) Electrical resistance to ground

(E) Capacity for compatibility with generally available original equipment and certified replacement parts listed in § 85.2112(a) (5), (6), (7), and (9).

(ii) For the purposes of this paragraph:

(A) "Distributor" means a device for directing the secondary current from the induction coil to the spark plugs at the proper intervals and in the proper firing order.

(B) "Distributor Firing Angle" means the angular relationship of breaker point opening from one opening to the next in the firing sequence.

(C) "Dwell Angle" means the number of degrees of distributor mechanical rotation during which the breaker points are capable of conducting current.

(12) Engine Valves [Reserved]

(13) Camshafts [Reserved]

(14) Pistons [Reserved]

(15) *Oxidizing Catalytic Converter*

(i) The emission-critical parameters for oxidizing catalytic converters are:

(A) Conversion Efficiency

(B) Light-off Time

(C) Mechanical and Thermal Integrity

(ii) For the purposes of this paragraph including the relevant test procedures in the Appendix:

(A) "Catalytic Converter" means a device installed in the exhaust system of an internal combustion engine that utilizes catalytic action to oxidize hydrocarbon (HC) and carbon monoxide (CO) emissions to carbon dioxide (CO_2) and water (H_2O).

(B) "Conversion Efficiency" means the measure of the catalytic converter's ability to oxidize HC/CO to CO_2/H_2O under fully warmed-up conditions stated as a percentage calculated by the following formula:

$$\frac{\text{Inlet conc.} - \text{outlet conc.}}{\text{Inlet conc.}} \times 100$$

(C) "Light-off Time" or "LOT" means the time required for a catalytic converter (at ambient temperature 68–86°F) to warm-up sufficiently to convert 50% of the incoming HC and CO to CO_2 and H_2O.

(D) "Peak Air Flow" means the maximum engine intake mass air flow rate measure during the 195 second to 202 second time interval of the Federal Test Procedure.

(E) "Feed Gas" means the chemical composition of the exhaust gas measured at the converter inlet.

(F) "Aged Catalytic Converter" means a converter that has been installed on a vehicle or engine stand and operated thru a cycle specifically designed to chemically age, including exposure to representative lead concentrations, and mechanically stress the catalytic converter in a manner representative of in-use vehicle or engine conditions.

(G) "Mechanical and Thermal Intergrity" means the ability of a converter to continue to operate at its previously determined efficiency and light-off time and be free from exhaust leaks when subject to thermal and mechanical stresses representative of the intended application.

(16) *Air Cleaner Filter Element.* (i) The emission-critical parameters for Air Cleaner Filter Elements are:

(A). Pressure drop

(B). Efficiency

(ii) For the purpose of this paragraph:

(A) "Air Cleaner Filter Element" means a device to remove particulates from the primary air that enters the air induction system of the engine.

(B) "Pressure Drop" means a measure, in kilopascals, of the difference in static pressure measured immediately upstream and downstream of the air filter element.

(C) "Efficiency" means the ability of the air cleaner or the unit under test to remove contaminant.

(17) *Electronic Inductive Ignition System and Components* [Reserved]

(18) *Electronic Inductive Distributors* [Reserved]

(b) Additional part standards. [Reserved]

A. Carburetor Vacuum Break (Choke Pull-Off)

1. *Test Procedure and Criteria*

a. Vacuum leakage: Apply 457 ± 13mm (18.0 ± 0.5 inches) Hg. vacuum to the vacuum unit to achieve full diaphragm displacement. Seal vacuum source to unit. There shall be no visible loss of diaphragm displacement or drop in vacuum gauge reading after a 15 second observation. Vacuum purge system and diaphragm displacement adjusting screw holes should be temporarily sealed during this test when applicable.

b. Diaphragm displacement: At stabilized temperature of − 29°C and 121°C (− 20°F and 250°F) with 457 ± 13mm (18.0 ± 0.5 inches) Hg. vacuum applied to unit, the diaphragm displacement shall be within ± 1mm (0.04 inches) of the nominal original equipment displacement. The vacuum purge system must be open during this test when applicable. Adjusting screws that limit displacement should be temporarily removed and adjusting screw holes temporarily sealed during this test.

c. Timed delay (when applicable): With 457 ± 13mm (18.0 ± 0.5 inches) Hg. applied to the unit, the vacuum break diaphragm displacement shall occur within ± 20% of the original equipment time over the specified range of displacement. The diaphragm displacement shall be timed over the same distance for the original equipment as the replacement part and shall not be less than 60% of the total displacement range. The vacuum purge system must be open and the adjusting screw holes should be temporarily sealed during this test when applicable.

d. Modulated stem displacement (when applicable): With a force sufficient to extend the modulated stem to its full displacement, the displacement shall be within ± 0.8mm (± 0.03 inches) of the original equipment specification.

e. Modulated stem displacement force (when applicable): The force required to start and finish the modulated stem displacement shall be within ± 35% of the original equipment specification for forces up to 142 grams (5 ounces) and shall be within ± 20% of the original equipment specification for forces exceeding 142 grams (5 ounces).

2. *Durability Procedures:* After 250,000 full displacement cycles (from atmospheric pressure to a minimum of 530mm (21 inches) Hg. vacuum at a temperature of 79°C (175°F)) in air, the following conditions shall be met:

a. Diaphragm displacement shall not degrade more than 10% from the original test measurements of paragraph 1.b. above.

b. Timed delay shall not degrade more than 10% from the original test measurement in paragraph 1.c. above.

c. Following these tests, the units must be free of visible defects.

B. Carburetor Choke Thermostats

1. *Test Procedures and Criteria*

a. All chokes

i. *Thermal deflection rate*

When tested on a suitable fixture, the deflection rate shall be within ±6% of

the original equipment value. The initial temperature and final temperature for purposes of this test may vary but shall exhibit a test temperature range of at least 44°C (80°F). Recommended test equipment, test procedures, and associated calculations are outlined in ASTM B389 (latest revision) or American National Standards Institute Z155–20.

ii. *Mechanical torque rate*

When tested on a suitable fixture, the torque rate shall be within ±12% of the mean original equipment value. Recommended test equipment, test procedures, and associated calculations are outlined in ASTM B362 (latest revision) or American National Standards Institute Z155–18 (latest revision).

iii. *Index mark position*

When stabilized for four hours at room temperature, the relative position of the thermostatic coil outer tang or loop and the index mark, when corrected to 24°C (75°F), shall be within ±5 angular degrees of the mean original equipment positions.

b. Electrically-heated Chokes

i. *Time to rotate coil tang*

When tested on a suitable fixture, the time to rotate through a prescribed angle at a prescribed temperature and prescribed voltage, for the specfic choke device under test shall be within ±12 seconds or ±25% of the mean original equipment value whichever is greater.

ii. *Electrical circuit resistance*

In an electrically-heated choke utilizing PTC type choke heater, the circuit resistance shall be within ±1.5 ohms of the mean original equipment value at 24±3°C (75°±5°F) unenergized.

iii. *Electrical switching temperature*

In an electrically heated choke thermostat utilizing a thermostatic disc switch in the electrical circuit, the temperature to open the circuit shall be within ±5.5°C (10°F) and the temperature to close the circuit shall be within ±11°C (20°F) of the mean original equipment value. Circuit opening temperature shall be measured on a decreasing temperature change, and the circuit closing temperature shall be measured on an increasing temperature change.

C. Carburetor Accelerator Pumps

1. *Test Procedure and Criteria*

a. Expose plunger or diaphragm assembly to temperatures of −30°C (−20°F) for 70 hours and at 70°C (158°F) for 24 hours, with a commercial grade fuel or equivalent.

b. Within one hour after temperature exposure of 1.a. above, each plunger or diaphragm assembly, when installed in an applicable carburetor or test fixture, shall at room temperature deliver a volume of test fluid (Stoddard solvent or equivalent) from a 10 stroke cycle,* within ±30% of the volume from a 10 stroke cycle of an original equipment plunger or diaphragm assembly.

2. *Durability Procedure:* After 250,000 operational cycles, at approximately 30 cycles per minute at room temperature in test fluid, the output of the plunger/diaphragm shall not drop below 90% of the low limit as established in 1.b.

D. Positive Crankcase Ventilation (PCV) Valve

1. *Test Procedure and Criteria*

a. Measure the flow of the PCV valve in standard cubic feet per minute (SCFM) vs. pressure differential across the valve over a range of operating pressures from 4–22 inches Hg., at standard atmospheric conditions (21.1° C (70° F) at 755mm (29.92 inches).

b. A PCV valve shall flow within the vehicle manufacturer's specifications or shall meet the following criteria: Whenever the mean of the original equipment flow curve is below 1 SCFM, a maximum deviation of the mean replacement PCV valve shall not exceed ± 0.1 SCFM. Whenever the mean original equipment curve is equal to or greater than 1 SCFM, a maximum deviation of the mean of the replacement PCV valve shall not exceed ± 10%. The total flow tolerance of the replacement valve shall not exceed the original equipment variation from the mean, at any pressure differential.

2. *Durability Procedure:* The flow of any specific PCV valve must not deviate from the flow curve of the original equipment PCV valve by more than the total original allowable tolerance when each is similarly operated in the intended vehicle application over the service interval stated by the certifier.

E. Breaker Points

1. *Test Procedures and Criteria*

a. Set up test system circuit and equipment per Figure 1 with an OE breaker point assembly. Connect the primary to a 14 ± .5 V DC regulated power supply.

b. Record dwell angle and open-circuit output voltage at 300 and 500 distributor rpm and at 500 rpm intervals up to the maximum speed of the intended application.

c. Insert the replacement part in the test system and repeat the observations per b above under identical test conditions.

d. The data observed with the replacement part in the system must meet the following criteria:

(1) The dwell angle change: Not to exceed that of the original equipment by more than ± 2° at all measured rpm intervals.

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*10 stroke cycle: 10 strokes from closed throttle plate position to wide open throttle plate position occurring within a 15–25 second time period.

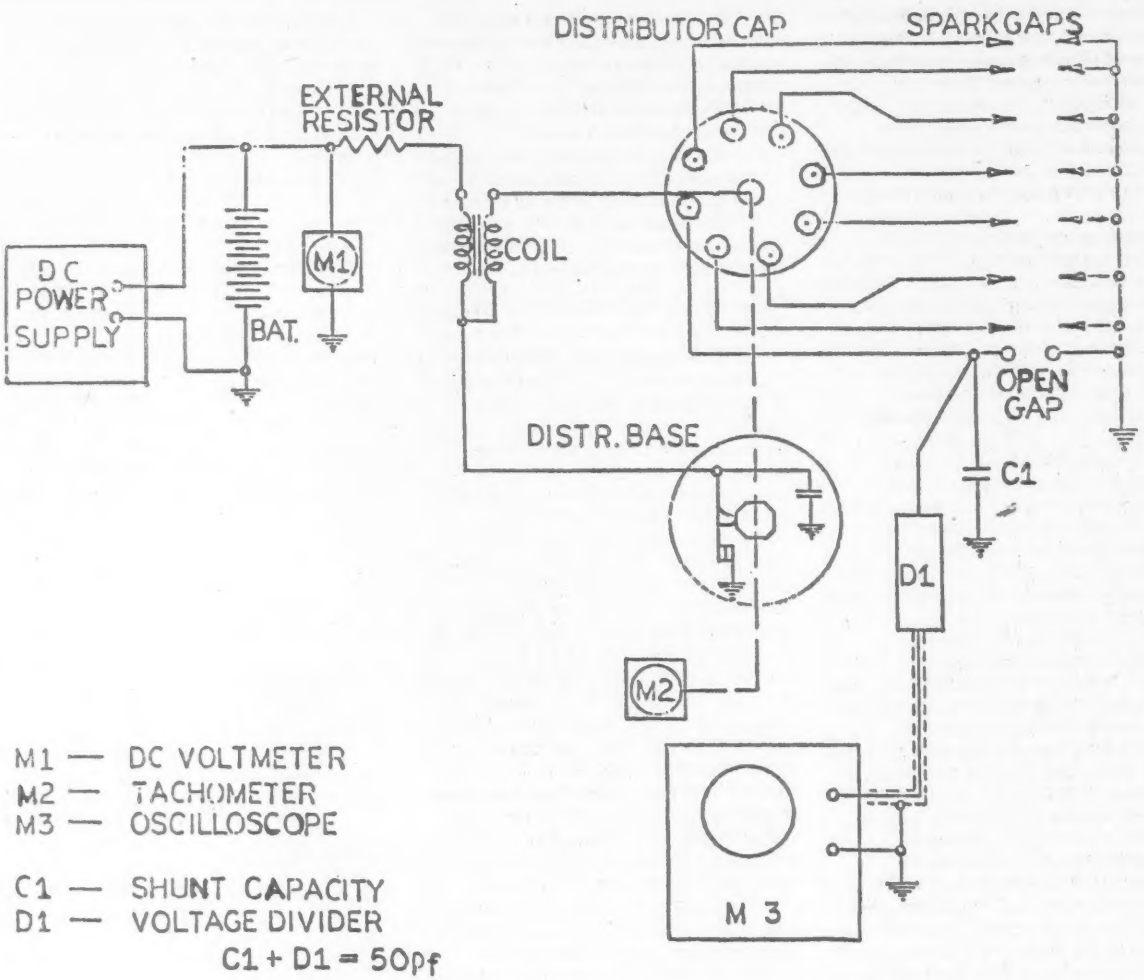

FIGURE I

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(2) The open circuit output voltage (M–3): Not less than 90% of the OE breaker point assembly at any measured rpm.

e. Repeat step c above at −40°C (−40°F) and 100°C (212°F).

f. The breaker points shall operate without evidence of point bounce at all test speeds and temperatures and shall operate easily without binding when operated manually.

2. *Durability Procedures*

a. Set up a bench ignition system using an applicable distributor or electro-mechanical equivalent.

b. Install the breaker point assembly under test in the distributor, lubricate and adjust per applicable vehicle manufacturer's specifications. Use applicable coil, primary resistor, capacitor, cap and rotor.

c. Connect the primary of the test system with a power supply regulated at 14±0.5 V DC for a 12V system.

d. The secondary portion of the test system is to be connected to a 12±2KV spark gap.

e. An external heat source shall generate an ambient temperature of 70° (158°F) for the distributor.

f. Drive the distributor at 1750±50 rpm for 200 hours. After each 50 hour interval, run the distributor for 5 minutes with one open circuit spark gap instead of a 12KV gap.

g. The replacement breaker point assembly must have the capability of performing throughout the duration of the test without evidence of any failure resulting in loss of spark in the 12KV spark gap.

h. After the 200 hours repeat step 1.c. above. The open circuit output voltage must be at least 90% of that measured in 1.c.

F. Capacitors/Condensers

1. *Test Procedures and Criteria*

a. The electrostatic capacitance of the replacement condenser shall be within ±20% of the value of the original part at 20±3°C (68±5°F). The capacitance is to be measured on a capacitance bridge having an accuracy of ±1% at 1 KHz frequency.

b. Set up the test system in accordance with Figure 1. The condenser series resistance shall be such that the output voltage at 500 distributor rpm with the replacement condenser shall not be less than 90% of the output voltage (M–3) with the original equipment condenser.

c. The capacitor must be able to withstand a minimum test voltage of 500V DC for a minimum of 0.1 seconds without failure.

d. (1) Measure capacitance after 4 hours minimum soak at 70° (158°F).

(2) After one hour at room temperature, place capacitor at −18°C (0°F) for 4 hours minimum and measure capacitance.

(3) Place capacitor at room temperature for 4 hours minimum and measure capacitance.

e. After thermal cycling, repeat 1.a. and b. The results must be within ±10 percent of the intital measurements.

2. *Durability Procedure*

a. Set up a bench ignition system using an applicable distributor or an electro-mechanical equivalent.

b. Install the capacitor under test in the distributor adjusted to applicable vehicle manufacturer's specifications. Use applicable coil, primary resistor, breaker points, cap and rotor.

c. Connect the primary of the test system with a power supply regulated at 14±0.5V DC for 12V system.

d. The secondary portion of the test system is to be connected to a 12±2KV spark gap.

e. An external heat source shall generate an ambient temperature of 70°C (158°F) for the distributor.

f. Drive the distributor at 1750±50 rpm for 200 hours. After each 50 hour interval, run the distributor for 5 minutes with one open circuit spark gap instead of a 12KV gap.

g. The replacement part must have the capability of performing throughout the duration of the test without evidence of any failure resulting in loss of spark in the 12KV spark gap.

h. After the 200 hours, the condenser shall be within 10 percent of the capacitance and voltage measured in 1.a. and b. respectively.

G. Distributor Caps and/or Rotors

1. *Test Procedures and Criteria*

a. Set up test system in accordance with the circuit and equipment per Figure 1 with OE distributor cap and/or rotor. Connect the primary to a 14±.5V DC regulated power supply.

b. Record open circuit output voltage (M–3) at 300 and 500 distributor rpm and at intervals of 500 distributor rpm up to the maximum speed of the intended application.

c. Insert the intended replacement part(s) in the system and repeat step b. above under identical test conditions.

d. Subject the intended replacement part to the following thermal sequence through five complete cycles:

1. 12 hours at −40°C (−40°F)
2. 2 hours at room temperature
3. 4 hours at 100°C (212°F)
4. 2 hours at room temperature.

e. Repeat step b. above with the replacement part(s).

f. The output voltages measured with the replacement part(s) in the system must be at least 90% of the output voltage with the OE cap and/or rotor.

2. *Durability Procedures*

a. Set up test system in accordance with circuit and equipment per Figure 1.

b. Install the cap and/or rotor under test in distributor, lubricate and adjust per applicable vehicle manufacturer's specifications. Use equivalent coil, primary resistor, breaker points and capacitor.

c. Connect the primary of the test system with a power supply regulated at 14±0.5 V D.C.

1. In breaker point operated systems, connect secondary to a 12 KV±2 KV gap.

2. In electronic ignition systems, connect secondary to a gap equivalent to at least 50% of peak open-circuit voltage.

d. An external heat source shall generate an ambient temperature of 70° (158° F) for the distributor.

e. Distributor shall be driven at 1750±50 rpm for 200 hours. After each 50 hours interval, run the distributor for 5 minutes with one open-circuit spark gap instead of a 12KV gap.

f. The replacement part(s) must have the capability of performing throughout the duration of the test without evidence of any failure resulting in loss of spark at the spark gap.

g. Repeat step 1.c. above. The open circuit output voltage must be at least 90% of that measured in step 1.c.

h. The replacement cap and/or rotor must be free of any visual cracks, arcing or melting.

H. Spark Plugs

1. *Test Procedures and Criteria*

a. Heat rating: When comparatively rated in the SAE 17.6 Spark Plug Rating engine according to the SAE J549A Recommended Practice, the comparative average rating of at least five (5) replacement spark plugs shall be within 15 percent of the average IMEP of at least five (5) OE spark plugs.

b. Gap spacing: The electrode spark gap shall be equivalent or adjustable to the recommended gap for the original equipment spark plug.

c. Gap location: The electrode gap position in the chamber shall be the same as specified by the vehicle manufacturer.

d. Flashover: The spark plug terminal end, with the properly fitted connecting boot, shall not flash-over at peak anticipated voltage for the intended application when electrode gap is 15% larger than vehicle manufacturer's gap specifications.

I. Inductive System Coils

1. *Test Procedures and Criteria*

a. Set up the circuit in accordance with Figure 1. Operate the circuit by an applicable distributor or equivalent triggering device and applicable primarly resistor with a 50 pf load at 14.0±0.50 volts DC input as applicable and stabilized at an ambient temperature of 20°C±3°C (68°F±5°F).

b. With the original equipment coil installed, record the predominant minimum peak voltage and rise time at 300 and 500 distributor rpm, and at 500 rpm intervals up to the maximum intended operating speed. The measurement is to be taken after 4 minutes operation at each speed.

c. Install the replacement coil to be tested and repeat step b. above.

d. The replacement coil shall have an open-circuit output voltage (M–3) at least 90% of the OE coil output voltage and a rise time not to exceed 110% of original equipment coil at each distributor test speed.

2. *Durability Procedure*

a. Install the replacement ignition coil in the ignition system using the applicable rotor, cap, capacitor, breaker points, and primary resistor.

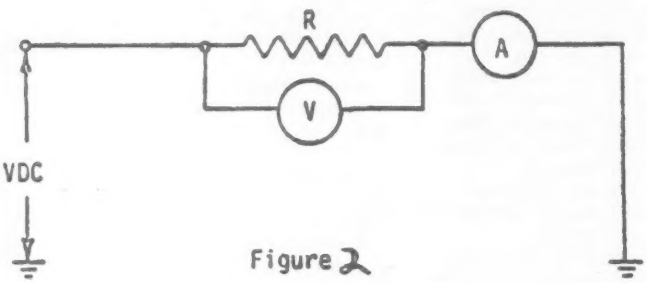

Figure 2

Current A to be maintained at 2.5 amps for duration of test.

b. Operate the circuit with a regulated power supply of 14.0 ± .5 volts DC connected to the primary at an ambient temperature of 70°C (158°F) at 1750 ± 50 distributor rpm for a duration of 200 hours. After each 50 hour interval, run the distributor for 5 minutes with one open-circuit spark gap instead of a 12KV gap.

c. The ignition coil shall perform throughout the test without any evidence of coil failure which would result in the loss of the spark in the 12 KV spark gap.

d. Repeat Step 1.c. above. The open-circuit output voltage must be at least 90% of that measured in 1.c.

J. Primary Resistors

1. *Test Procedures and Criteria.*

a. Configure the circuit shown in Figure 2, using the original equipment resistor.

b. At 20 ± 3°C (68 ± 5°F), apply voltage for 15 minutes; maintain current at 2.5 amps. At conclusion of 15 minutes, read voltage and current. Calculate resistance using the relationship

R=E/I,

where:
R=Resistance in ohms,
E=Voltage (V) in volts,
I=Current (A) in amps.

c. Replace OE test sample with part to be certified and repeat step b. above.

d. Resistance of the part shall be within ± 20% of original equipment resistance.

2. *Durability Procedure.*

a. Using the circuit shown in Figure 1, apply current at 70°C (150°F), for 200 hours.

b. After 200 hours retest as in step 1.c. above, and verify that resistance is within ± 20% of the value as measured in step 1.b. above.

K. Distributors—Breaker Point

1. *Test Procedures and Criteria.*

a. Using an appropriate test installation, operate the distributor through its intended speed range.

b. The advance mechanism shall function within the tolerance of the vehicle manufacturer's original specification over the speed range of the intended application as to vacuum and centrifugal advance.

c. The advance mechanism shall repeatedly return to the zero setting ± 0.5 distributor degrees after advancing and retarding through the operating range.

d. The distributor firing angle accuracy shall remain within the originally specified tolerances throughout the speed range of the intended application.

e. The distributor shall be capable of maintaining the dwell angle of the original equipment specification with ±2 degrees throughout the speed range of the intended application.

f. The distributor shall be capable of open-circuit output voltage (M–3) equal to at leat 90 percent of the voltage produced by the original equipment system over the speed range of the intended application.

2. *Durability Procedure.*

a. At an ambient temperature of 70° C (150° F), operate the distributor at 1750 ± 50 rpm for 200 hours.

b. The distributor must meet the requirements of paragraph 1.b. through f. after the 200 hours.

L. Reserve for Engine Valves

M. Reserved for Camshafts

N. Reserved for Pistons

O. Oxidizing Catalytic Converters

1. *Test Procedures and Criteria.*

(a) The fresh and aged conversion efficiencies of the replacement oxidizing catalytic converter shall be equal to or exceed those of the original equipment converter for CO and HC emissions. The fresh and aged Light-off Time (LOT) of the replacement converter shall be equal to or less than those of the original equipment converter for CO and HC emissions. These parameters shall be determined for both fresh and aged converters under the same conditions using the following steady state feed gas concentrations and conditions for LOT and Conversion Efficiency respectively:

	LOT	Conversion efficiency
Exhaust mass flow rate.	See note (2).....	See note (1).
Total hydrocarbons.	See note (3).....	See note (3).
Carbon monoxide....	1.0 to 2.5%.....	1.0 to 2.5%.
Hydrogen.....	0.33×% CO maximum.	0.33×% CO maximum.
Oxygen.....	1.5×% CO minimum.	1.5×% CO minimum.
Converter inlet gas temperature.	650°F to 850°F.....	650°F to 850°F.

Note 1.—Not less than peak air flow of the vehicle or engine configuration being certified for. If more than one vehicle or engine application is to be covered by a generic converter, the greatest peak vehicle or engine air flow shall be used.

Note 2.—Between 0.10 and 0.40 times the value determined in Note 1.

Note 3.—500–2000 parts per million by volume minimum based on Methane calibration. If a non-engine simulator gas source is used, a mixture ratio of 10% propane to 90% propylene by volume will constitute an acceptable synthetic for total exhaust hydrocarbons.

(i) LOT tests shall be conducted by exposing the converter to a step change in temperature, from ambient to that specified above: 650°–850°F. Converter inlet and outlet exhaust emissions as measured. Light-off Time is then determined by recording the time required for the converter to reduce the outlet emissions (HC and CO) to 50% of the inlet emissions, on a volumetric concentration basis, measured from the step temperature change.

(ii) Conversion efficiency measurements shall be obtained by passing stabilized-feed gas through the converter (at conditions specified above) and making simultaneous measurements of inlet and outlet emission volume concentrations. The conversion efficiency for CO and HC is then calculated.

(iii) The particular conditions for which LOT and conversion efficiency are measured (i.e., exhaust mass flow rate, total hydrocarbons, carbon monoxide, hydrogen, oxygen, and converter inlet temperature) for the replacement converter and original equipment converter tests must not vary from one another by more than 10%.

(b) Fresh and aged catalytic converters may be obtained by operating the converter on individual vehicle or engine application for which it is intended on the Federal Test Procedure road durability driving cycle. A fresh converter results when the converter has operated between 2000 and 5000 miles or equivalent hours. An aged converter results when the converter has been operated for the warranted life of the original equipment converter.

(c) Where one generic converter is intended to cover multiple vehicle or engine configurations, converter aging may be obtained per Paragraph (b) above, on a vehicle or engine which represents the greatest peak air flow of the group of vehicle configurations to be covered, and whose calibration and feed gas concentrations are representative of the vehicle or engine configurations being certified for.

2. *Other Considerations.*

(a) Replacement converter must fit within the width and length space envelope of the original equipment converter. Converter spacing from the underbody and for ground clearance must be the same or greater than the original equipment converter application.

(b) Pressure drop measured between inlet and outlet pipe interconnecting points on the replacement converter shall be within ±25% of similar measurements for the original equipment converter being replaced, when measured at each of three flow conditions 50 SCFM, 100 SCFM, and 150 SCFM with a suitable fluid medium such as air. Maximum allowable exhaust gas leakage from the replacement coverter shall be 0.4 cubic feet per minute measured at 4.0 pounds per square inch differential. All measurements must be normalized to equal density conditions.

(c) Converter skin temperature shall be measured during the converter efficiency test. The skin temperature for the replacement converter must equal or be less than that for the original equipment converter.

P. Air Cleaner Filter Element

1. *Test Procedures and Criteria.*

(a) Using test equipment and procedures specified in SAE–J726c, perform:

(i) Air Flow and Pressure Drop Test (2.3) at 200 SCFM, record test conditions and pressure drop.

(ii) Efficiency Test (2.4) to measure full life efficiency at 200 SCFM to a total pressure drop of 9 inches of water, record test conditions and test duration from first to last addition of standard dust, weigh test element and absolute filter at end of test using three randomly selected original equipment air filter elements.

(b) Perform tests as in (a) above, under conditions controlled to within ±10% of the corresponding original equipment test conditions, for three randomly selected replacement air filter elements.

(c) The replacement air filter element average recorded test results. The pressure drop in (i) and absolute filter weight in (ii) must be equal to or less than those average results for the original equipment test results. The replacement air filter averaged test results for element weight in (ii) must be equal to or larger than averaged result for the original equipment averaged test results.

2. *Durability Procedure.*

(a) After use in the intended vehicle or engine application for the recommended service interval, the replacement element shall evidence an increase in pressure drop (as measured in 1 (a)(i) above) equal to or less than that of the original equipment air filter element tested in the identical manner.

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